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OF
EGYPTIAN ARCHAEOLOGY

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THE JOURNAL
OF
EGYPTIAN ARCHAEOLOGY



26517

VOLUME VIII

913.3205
J. E. A.

PUBLISHED BY
THE EGYPT EXPLORATION SOCIETY
13 TAVISTOCK SQUARE, W.C. 1

LONDON

1922

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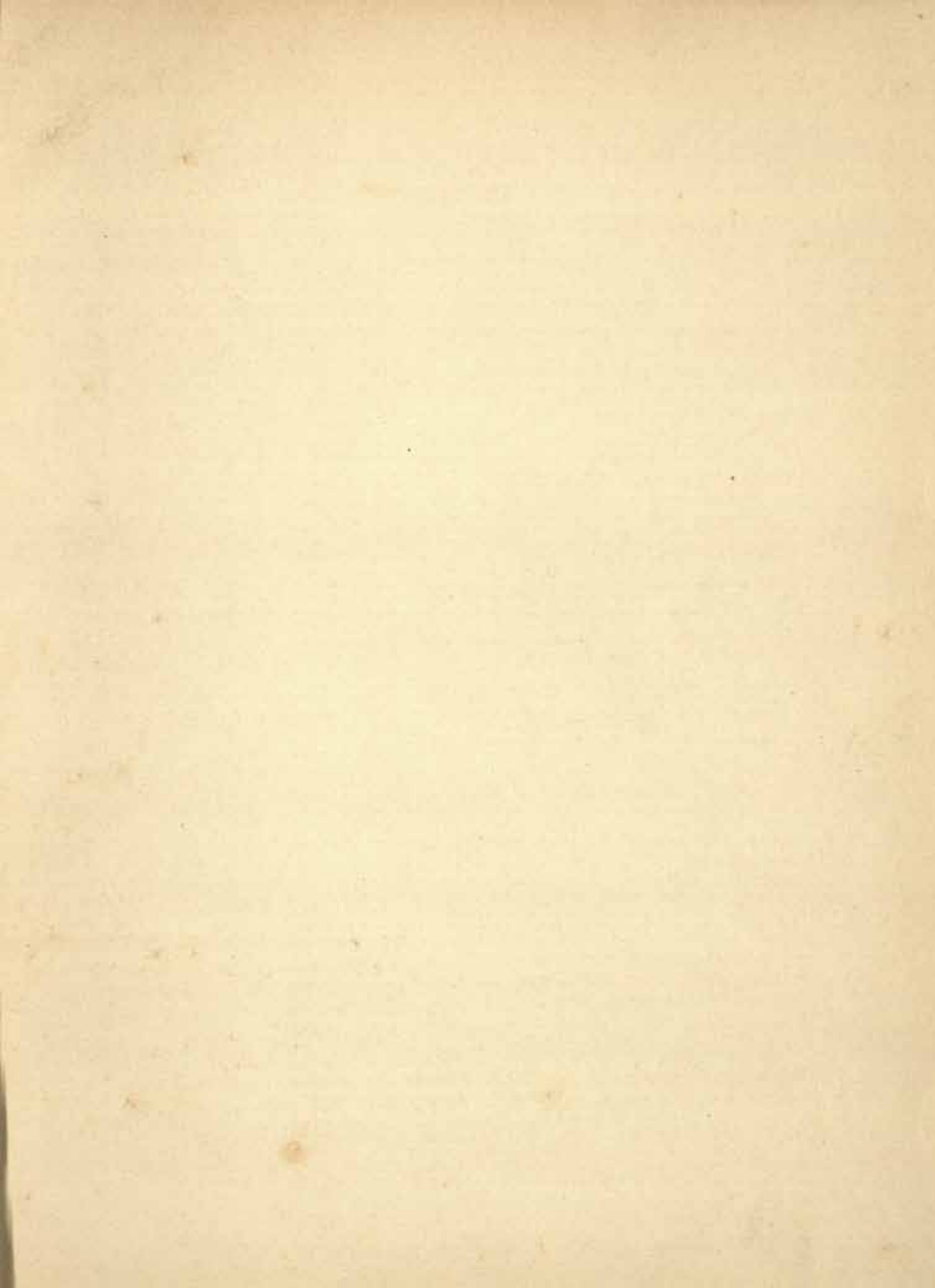
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CONTENTS

	PAGE
ALABASTER VASES OF THE NEW KINGDOM FROM SINAI	E. T. Leeds, M. A. 1
THE ANTIQUITY OF EGYPTIAN CIVILIZATION BEING A PLEA FOR SOME ATTEMPT TO FORMULATE THE LAWS WHICH SHOULD FORM THE BASIS OF ARCHAEOLOGICAL ARGUMENT	Professor T. Eric Peet, M. A. ... 5
A GROUP OF SCARABS FOUND AT LISHT ...	A. C. Mace 13
EL-KÂB AND ITS TEMPLES	Somers Clarke, F. S. A. ... 16
THE RELATION OF MARDEK, ASHUR, AND OSIRIS	Sidney Smith, M. A. 41
KIZZUWADNA AND KODE	Sidney Smith, M. A. 45
EXCAVATIONS AT TELL EL-AMARNA ...	C. Leonard Woolley, M. A. ... 48
BIBLIOGRAPHY: GRAECO-ROMAN EGYPT.	
A. PAPYRI (1920-1921)	H. Idris Bell 83
TWENTY-FIVE YEARS OF PAPYROLOGY ...	Prof. A. S. Hunt, D. Litt., F. B. A. 121
THE LIBRARY OF A GREEK OF OXYRHYN- CHUS	Sir Frederic Kenyon, K. C. B., D. Litt., F. B. A. 129
HELLENIC CULTURE IN EGYPT	H. Idris Bell, M. A. 139
A GNOMIC OSTRAKON	J. G. Milne, M. A. 156
THE COINS FROM OXYRHYNCHUS	J. G. Milne, M. A. 158
AN ALEXANDRIAN COIN OF DOMITIA ...	G. F. Hill 164
THE STRATEGI AND ROYAL SCRIBES IN THE ROMAN PERIOD	John Gavin Tait 166
BIBLIOGRAPHY: CHRISTIAN EGYPT ...	De Lacy O'Leary, D. D. ... 174
A STELA OF THE EARLIER INTERMEDIATE PERIOD	Alan H. Gardiner, D. Litt. ... 191
THE MUMMY OF AKHENATON	Arthur Weigall 193
SOME HYKSOS PLAQUES AND SCARABS ...	G. D. Hornblower, B. A. ... 201

	PAGE
BABYLONIAN CYLINDER SEALS FROM EGYPT	Sidney Smith, M. A. ... 207
ENGRAVED HITTITE OBJECTS ...	D. G. Hogarth, D. Litt., F. B. A. 211
THE EGYPTIAN transliteration of HITTITE NAMES ...	H. R. Hall, D. Litt. ... 219
NEAR-EAST PROBLEMS IN THE SECOND PRE- CHRISTIAN MILLENIUM ...	Professor A. T. Olmstead ... 223
THE GEOGRAPHICAL POSITION OF ARZAWA	Rev. Professor A. H. Sayce ... 233
SOME OCCURRENCES OF THE CORN- <i>'araseh</i> IN ANCIENT EGYPTIAN TOMB PAINTINGS	Winifred S. Blackman ... 235
THE DISCOVERIES AT TELL EL 'OBEID IN SOUTHERN BABYLONIA AND SOME EGYPT- IAN COMPARISONS ...	H. R. Hall, D. Litt., F. S. A. 241—257
L. MITTEIS (1859—1921) ...	Sir Paul Vinogradoff ... 258—259
BIBLIOGRAPHY 1921—1922: ANCIENT EGYPT	F. Ll. Griffith, M. A. ... 260—283
NOTES AND NEWS ...	... 102—106, 284—286
NOTICES OF RECENT PUBLICATIONS ...	... 107—119, 287—289
LIST OF PLATES ...	... 291—292
LIST OF ILLUSTRATIONS IN THE TEXT ...	... 293
NOTICES OF RECENT PUBLICATIONS, DETAILED LIST ...	... 294
INDEX ...	... 295—298





ALABASTER VASE FROM SINAI

Scale one-half

MILLIMETRES
0 10 20 30 40 50 60 70 80 90 100

ALABASTER VASES OF THE NEW KINGDOM FROM SINAI

By E. T. LEEDS, M.A.

DURING his archaeological campaign among the turquoise mining settlements of Sinai in 1906, Professor Petrie recovered from the temple of Serâbit el-Khâdim, among other objects, numerous fragments of alabaster vessels, some of which he published in his *Researches in Sinai*¹. In 1911 the Committee of the Egypt Exploration Fund sent the greater part of these fragments to the Ashmolean Museum, where it was resolved to see how far restoration of the sadly imperfect material might be possible. The nature of these fragments had been indicated briefly by Professor Petrie, but the results of the work of restoration were such that Mr Griffith has invited me to write a fuller account for the *Journal*. I could hardly have undertaken that task, had I not been able to draw freely upon Mr Griffith's Egyptological learning.

At an early stage it became clear that the consignment did not include all the pieces figured by Professor Petrie, and the missing fragments along with others were found to have been allotted to the Musées du Cinquantenaire at Brussels. Professor Capart, Director of the Egyptian Section, kindly lent the Brussels fragments for investigation, and on completion of the task allowed some pieces to be retained in exchange for others. To this friendly co-operation was due the chief product of the work of restoration, namely the admirable goblet illustrated on Plate I.

The goblet measures 223 mm. in height and 173 mm. across the mouth, and is fashioned in the shape of a lotus-flower with the petals carved in low relief. The effect of this carving must originally have been considerably enhanced by the translucency of the walls, which are only 7-8 mm. thick. But some of the brilliancy was diminished by the incision of dedicatory inscriptions heightened by red ochre. On the body of the goblet are the titles of Amenophis III enclosed in a rectangular frame, "Lord of the Two Lands Nib-ma^c-rê^c, Lord of the Strong Arm Amenophis Ruler of Thebes, to whom is given life [like Rê^c], beloved of Hathor Lady of Turquoise."

On the swell above the stem in a single horizontal line was the name of the dedicator "[The royal] scribe, superintendent of the treasury, [Pnehas]i, justified." The writing of the last word with the herb-sign is very uncommon.

A large portion of the bowl of a similar goblet, reaching from the rim almost to the junction with the stem (Pl. II, 1), was also made up and served to indicate the position, otherwise uncertain, of fragments in the first example. The inscription is better preserved and is identical with the above, except that the king here has the usual titles "King of Upper and Lower Egypt" and "Son of the Sun" before his names.

The position of the horizontal line of inscription on the calyx of the flower (although the pieces nowhere actually join the fragments above in the completed vase) is rendered certain, not only by their shape, but also by the evidence of the duplicate portion in which have

¹ Pls. 144, 145 and pp. 137, 138.

been incorporated the two middle pieces figured in PETRIE'S *Researches in Sinai*, Pl. 145, Fig. 1 and the fragment Pl. 144, Fig. 5. At the apex of this latter fragment is the stem of the *ankh*-sign belonging to the royal titles on the body of the vase, so fixing the position of the name of Pnephasi beneath. His name and titles occur elsewhere (see below) and accordingly the fragment figured in PETRIE'S *Researches*, Pl. 144, Fig. 6, is now placed in the calyx of the restored vase to the right of the photograph; the fragment 7 belonged to some object of entirely different form. Portions of the concave foot made possible the complete restoration of the goblet.

Although the two goblets have so many points of correspondence, they differ markedly in the execution of the carving of the lotus-petals. In the completed vase the carving is a little shallower and flat bands have been left between the grooves, while in the other the flutings of the petals are set closer, leaving only a narrow ridge between them. The former is of fine honey-coloured material, the latter has a greyish tinge.

A second vase which it has been possible to restore (Pl. II, 2) is a figure of Bes, PETRIE'S *Researches*, Pl. 144, Fig. 11, 222 mm. in height, and 93 mm. across the mouth. On the front are cartouches of Ramesses II beneath the winged disc of the sun, incised and heightened with blue frit, settling the date. Professor Petrie had conjecturally attributed the vase to the reign of Menephtah. The cover, if it had one, may have shown the plumes of the god.

The third restored vase (Pl. II, 3), measuring 178 mm. in height and 64 mm. across the mouth, is in the form of a dwarf carrying a large amphora. No inscription remains. To another remarkable piece, finely worked but alas! sadly defective, belong the fragments figured in PETRIE'S *Researches*, Pl. 145, 2-5. Such restoration as has been possible has proved it to be not as stated by Professor Petrie, a solid statuette, but a figure-vase, originally some 30 cm. high, representing a person, perhaps a woman, kneeling on one knee with both hands raised, most probably to support a vase on the head. The fragment illustrated, Pl. 145, 2, is nothing more than the raised knee (it actually joins the other pieces) and thus needs no ingenious interpretation of foreign drapery, such as Professor Petrie advanced, to explain it. There are also parts of a similar figure vase, still larger, with the cartouches of Menephtah on the back.

Other fragments belong to two vases representing animals, presumably Hathor-cows, standing on plinths. The larger, about 20 cm. high, bore on each flank the second cartouche of Menephtah coloured with blue frit (PETRIE, *Researches*, Pl. 144, 8). The other was similarly provided with pairs of cartouches of the same king (as *ib.* 10). In each figure a large hole had been drilled out of the hinder end through which the inside of the body was entirely hollowed out; the hole was then filled up with a neat plug with bevelled edges, and on this plug was carved the missing portion of the animal's tail. In the head of the smaller animal a narrow duct bored from the mouth led to the interior. Sockets for the reception of the horns, which are also of alabaster broken off short in the sockets, were drilled in the top of the head, and there is a second orifice in the middle of the back for filling (?). The fragments are insufficient to determine whether the larger animal had similar arrangements in the head, but there was certainly a hole in the back.

It is to be observed that the only alabaster figure-vase in the museum from Sinai with the name of Ramesses II is the Bes-vase; on the other hand, there are fragments of human

¹ See the goat-vase in the British Museum, WALLIS, *Egyptian Ceramic Art, the MacGregor Collection*, Fig. 115 on p. 53. Or perhaps it carried a vase like the faience camel from Abydos in the Cairo Museum, *op. cit.*, Fig. 112 on p. 52.



ALABASTER VASES FROM SINAI

Scale one-half

figure-vases with the name of Menephtah and portions of several cows (?) with the same name. The inscriptions of the early part of the Eighteenth Dynasty are delicately engraved; it must be confessed that those of Pnehasi, towards the end of the Dynasty, are an outrage on the beautiful goblets, though they are tolerably well done and add much to the interest of the specimens. The cartouches of Ramesses II are very badly engraved but are applied to less fine work; and those of Menephtah are worst of all. Some of these last may belong to figure-vases of good design and workmanship, and the question arises whether those two royal thieves, who never scrupled to re-use the monuments of their predecessors on the throne, may not here also have been rudely converting earlier dedications to their own profit with the Goddess of turquoise-mining. If it be so, the name of Menephtah would give only the *terminus ante quem*; but, pending further evidence, we may perhaps accept all the cartouche-datings at their face value.

The Pnehasi who dedicated the goblets as well as the unknown object, PETRIE, *Researches*, Pl. 144, Fig. 7, is known from no less than seven other inscriptions found about the same temple. The chief of these is a large but very illegible stela (GARDINER and PEET, *Inscriptions of Sinai*, I, Pl. LXVI, No. 211) dated in the twenty-sixth year of Amenophis III, on which it is recorded that he was commissioned by the King and eventually "went on both sides of the (Red) Sea to arrange the wonderful products of Punt and to receive the odoriferous gums, the tribute of unknown lands," and also that he "superintended the turquoise-digging." As on the goblets, he is described repeatedly in these inscriptions as "royal scribe, superintendent of the treasury," and further it appears that, although he was generally called Pnehasi, "the Nubian," his real name was Sebek-hotp and that he was the son of a similar official Sebk-mosi (GARDINER-PEET, *op. cit.* Pl. LXV, No. 220).

A point of some interest in connexion with the alabasters is the mention of Hermopolis Magna in Upper Egypt on the plinth of a statuette (*Inscriptions of Sinai*, I, Pl. LXV, No. 217) also dedicated by Pnehasi. The tutelary deity of Hermopolis was Thoth, whose figure appears in one or two cases on the monuments from Sinai. The statuette in question was that of a baboon, the animal specially sacred to Thoth in that locality. In the desert immediately to the East of Tell el-Amarna, which lay in the nome of Hermopolis and near to the capital, is situated the great quarry of Hat-nub. From it was derived most of the finest alabaster used in ancient Egypt. No alabaster quarry exists in the Sinai peninsula; consequently all the objects of that material discovered there must either have been made in Egypt itself or, an unlikely alternative, from material transported thence for manufacture at Serabit el-Khadim. Indeed Hat-nub is named on a fragment of an alabaster plinth which must have been inscribed early in the Eighteenth Dynasty.

It is somewhat strange that there appears to be nothing in alabaster found in Egypt quite parallel to this astounding group of vases, the more so, because their inscriptions alone prove a range from Amenophis III to Menephtah, a period at least exceeding a century. There exist, however, goblets in faience (e.g. H. WALLIS, *Egyptian Ceramic Art*, Pl. XIII, from Tûnah, close to Hermopolis, and another from Médûm in the Ashmolean museum) and numerous figure-vases in pottery of this same period.

It is evident from the inscriptions as well as from the quality of the objects dedicated by him that Pnehasi was a person of considerable importance and wealth under Amenophis III, and it is therefore interesting to speculate whether he is identical with the still more important official, "The chief Servant of Aton in Akhetaton and second prophet of the Lord of the Two Lands, Pnehasi," for whom a splendid rock-cut tomb at Tell el-Amarna was

prepared in the reign of Amenophis III's successor Akhenaton¹. In view of the apparent connexion of the Pnehasi of Sinai with Hermopolis Magna and with the production of *objets d'art*, this conjecture is perhaps not so far-fetched as might appear at first sight, although the inscriptions at Serâbit and Tell el-Amarna furnish no definite evidence to confirm it.

As a further conjecture it may be suggested that the same school which produced these alabasters reached its zenith in the brilliant naturalism of the wonderful sculptor's portrait-models of Tell el-Amarna; and that it is thus precisely at Hermopolis or in its vicinity that counterparts of the Sinai vases should be sought.

¹ DAVIES, *The Rock Tombs of El Amarna*, Part II, of which Pl. X shows that he had to deal with foreigners, like Pnehasi of Sinai.

THE ANTIQUITY OF EGYPTIAN CIVILIZATION

BEING A PLEA FOR SOME ATTEMPT TO FORMULATE THE LAWS WHICH
SHOULD FORM THE BASIS OF ARCHAEOLOGICAL ARGUMENT

BY PROFESSOR T. ERIC PEET, M.A.

ARCHAEOLOGY can in no sense be termed an exact science, that is to say, its conclusions rarely follow with mathematical certainty from its premises, and indeed but too frequently they do not rise above the level of mere nebulous possibilities or probabilities. This state of things is partly to be accounted for by the very nature of its subject matter, but also, in the opinion of the writer, by the fact that archaeologists have hitherto made no attempt to come to any kind of agreement as to the conditions which must be satisfied by a train of archaeological reasoning in order that it may acquire cogency. We are doubtless all to blame in this, and in our defence it can only be urged that the constant accumulation of fresh material has tended to distract our attention from a really critical use of the evidence already available.

It may perhaps be replied that all are aware of this, but that on such questions as, for instance, the single or multiple origin of certain customs and discoveries, agreement is impossible, some minds being so constructed as to postulate single origins, others multiple. This view doubtless contains a measure of truth, but to make further use of the same example, it is undeniable that on the matter of fact in any particular case one of these types of mind is right and the other wrong, and we are not so pessimistic as to the limits of human reasoning powers as to wish to believe that some guiding principles could not be enunciated after collaboration between scholars which would enable a fair measure of certainty, or at least a very high measure of probability, to be arrived at in some instances. Thus it might be fruitful to discuss whether or not a custom which is a natural one and answers to some obvious and definite need in the development of man is more likely to have arisen in several places independently than a custom which seems to answer to no physical or mental need and to be a pure freak. Is it, for instance, not possible that while the use of copper or of picture-writing was discovered independently in more than one place, the practice of making gold *lunulae* of a particular shape and design had a single origin, and that, in consequence of this, when we find copper or picture-writing in use in two places A and B which are far apart we are not justified in assuming any connection of trade or race between them, whereas if we found these same *lunulae* in both we should have a very strong presumption for assuming a connection? Is it not further possible, in some cases at least, that a custom or use might lie between these two extremes, and that while we should not be prepared to say that it could have occurred to but one people and at only one time, yet we find it unlikely that it should have arisen independently in a very large number of localities?

Whether or not the suggestion made in the above paragraphs is in any way practical, and whether any positive results are likely to be arrived at on these lines it would be difficult to say. It is, however, beyond doubt that some negative results, to use a para-

doxical term, would emerge. It would, in other words, be generally agreed that certain types of archaeological argument, so far from arriving at certainties, do not even establish probabilities, and that they should therefore be dismissed as sterile.

We propose to examine in the light of what has been said a particular piece of archaeological reasoning, partly because if it were sound we should be forced completely to revise our ideas concerning the late palaeolithic periods, still more because it is an admirable example of a type of argument with regard to which archaeology will have to make up its mind if it is to advance.

Six years ago Professor Flinders Petrie published two highly interesting articles in *Ancient Egypt*¹, in which he strove to establish a date of roughly 8000 B.C. for the earliest predynastic graves in Egypt. Those who are acquainted with Professor Petrie's work (and who is not?) will hardly need to be told that he has always been an upholder of very high dates for Egyptian civilization, and one is not surprised to find him tacitly assuming a date of 5500 B.C. for the beginning of the First Egyptian Dynasty. It is true that he stands almost alone in this estimate, for most Egyptologists prefer to think of Menes as coming to the throne more than 2000 years later than this, and even Borchardt's ingenious but probably unjustifiable manipulation of the Palermo stone fragments² fails to push the date back much beyond 4200 B.C. For the moment, however, we may waive this point, for Petrie's *terminus a quo* is, as an illustration of the principles under discussion in this article, more important than his *terminus ad quem*.

In a recent volume called *Prehistoric Egypt* Petrie has still further elaborated the conclusions reached in the articles above quoted. His main arguments are four, and we shall deal with them in turn.

The first is as follows. He begins by assuming 5500 B.C. for the close of the predynastic period. He then says "looking at the proportion which the number of graves bears to those of the historic ages, it seems that the rise of that civilization is not likely to have been later than 8000 B.C." Here we have at the outset an excellent instance of a line of inquiry in our opinion absolutely sterile. In the first place it is manifestly almost impossible to make any estimate of the number of graves which existed in Egypt either in the predynastic or the historic period. There are too many unknown factors in the situation, the number of graves of either period destroyed in past ages, the number "excavated" by archaeologists and never recorded, the number still not discovered; all these things would force us to treat any figures given as unworthy of serious consideration. Still worse, even if we could with a considerable degree of probability establish that the number of predynastic graves was equal to that of the graves dug in any period of 2500 years of the historic era, we should have no right to draw the inference that the predynastic period lasted about 2500 years and therefore began about 8000 B.C., for we have no means of deciding to what extent the population of Egypt remained stable over those periods, or whether, supposing it to have varied, the variations chance to cancel each other. There are three times as many graves dug in England in ten years to-day as there were a few centuries ago for the simple reason that the population is three times as great.

Now we find in *Prehistoric Egypt*² that the figures on which Petrie bases his conclusions are not estimates covering the whole of Egypt, or even a large part of it, but figures taken

¹ 1915, pp. 59-76 and 122-135.

² *Die Annalen und die zeitliche Festlegung des alten Reichs der ägyptischen Geschichte*, Berlin, 1917.

³ p. 4.

merely from "the group of cemeteries extending over about eight miles recorded in *Diospolis*," that is to say from the graves, 2050 in number in all, examined by a single expedition in one particular season. Are we to believe that in about 12,000 years (to take Petrie's own dates) only 2050 people have died in that eight miles of land, in a country where the death rate is high, and, if this is not the case, can we assume that the proportion of historic to prehistoric burials would be the same among the undiscovered or plundered tombs as in those which Petrie has excavated? Obviously not. The new discovery of a historic cemetery of 500 graves would destroy the whole argument. And in any case it would be quite possible to pick out tracts of country where the same type of reasoning would give precisely opposite results.

Petrie's next argument is geological. He points out that geologists have devised a method of determining approximately the age and the rate of formation of rocks by means of their helium and lead constituents¹, and that the average rate of formation is between 100 and 200 feet of thickness of rock per million years. Moreover the average rate of denudation of the earth's surface varies from 700 to 7000 years for a foot. These figures cannot be directly applied to fix the age of the predynastic period in Egypt, for we cannot bring this short period into temporal connection with any of the appreciable geological changes in the Nile valley except the depositing of Nile mud². There is, however, a possible indirect application, for, working on such figures as these, certain geologists have assigned to the *magdalénien* period in Europe dates ranging from 20,000 B.C. down to 10,000 B.C. or even later, and if we could find a temporal equation between predynastic Egypt and the *magdalénien* we could then use the geological figures to date the former. As will be seen below, Petrie believes that such an equation can be established. The validity of his argument from geology is thus dependent on the soundness of the reasoning on which he bases this equation, and may therefore be dismissed for the moment.

His next argument is based on the rate at which the Nile deposits mud in its bed. Assuming that the deposit amounts to 5 inches per century, the deposit must have begun somewhere between 5000 and 13,000 B.C. As "the deposit was probably slight to begin with, it is reasonable to credit an age of 8000 or 10,000 B.C. for the beginning of cultivation and the rise of the prehistoric civilization." These figures, especially the last, certainly invite criticism, but it is hardly worth while to attack them, since the argument makes another assumption which in itself is sufficient to vitiate the conclusion. The assumption lies in the temporal equation concealed in the words "the beginning of cultivation and the rise of the prehistoric civilization." By the "beginning of cultivation" is meant, as may be seen from the sentence quoted above, the time at which the Nile valley first contained sufficient deposit of fertile mud to be cultivable; but this is a very different thing from the moment at which it was first actually cultivated. A land may wait ten thousand years fit for cultivation before a people acquires the knowledge wherewith to cultivate it. The argument is therefore fallacious.

But there is worse to come. Petrie's next argument is as follows: "There are two well-

¹ See for example JOLY, J., *Radioactivity and Geology* (London, 1909) and HOLMES, ARTHUR, *The Age of the Earth* (London, 1913).

² Surely the complicated geological changes (huge alteration in river level, silting up and scouring out of the great valley at Thebes, etc.) which Petrie equates with an average denudation of 4 feet of land surface and compares with the 20,000 years allotted by some to the *magdalénien* period are, on his own showing, all anterior to the predynastic period, and, as such, irrelevant to the argument.

marked periods, or different civilizations, in the prehistoric graves. Now the average life of a civilization in Egypt is 1300 years, and so two cycles would imply a length of 2600 years on an average." This gives a date of more than 8000 B.C. for the beginning of the predynastic period. It is hardly necessary to point out the futility of an argument of this type. Who is to say what constitutes "a civilization"? It is true that we do, for purposes of convenience, divide Egyptian history up into periods to which we give distinguishing names. It is further true that the divisions which we adopt are in some cases fixed by external or internal events of great importance. But even were it a fact that the historical period in Egypt naturally fell into periods of 1300 years in length (and, be it noted, distinguishable from another by such marked characteristics as to constitute separate "civilizations") this would be an interesting coincidence, but would hardly justify us in making the general statement that in Egypt civilization must run in cycles of 1300 years, and concluding that in the predynastic period it must have done the same, so that the length of that period must be two cycles¹.

Such then are Petrie's arguments for the dating of the predynastic period back to at least 8000 B.C. Three of these involve ordinary logical fallacies, but the fourth is of greater interest for it bears directly on the purpose of this article. He has accepted the geological dating of the *magdalénien* period in Europe as somewhere between 20,000 and 10,000 or even a little later, and in order to date the predynastic tombs back to that period he must demonstrate their contemporaneity with the *magdalénien*. This he proceeds to do by attempting to show that the great periods of the European palaeolithic age are represented in the same order in Egypt. With the *chelléen*, *acheuléen* and *moustérien* periods we are not here concerned. Our interest is rather in the later periods, the *solutréen* and the *magdalénien*.

All Egyptian archaeologists are acquainted with the so-called Fayyûm flints, which on the authority of de Morgan² mainly come from near Dimê and Kôm Ashim. The flints have unfortunately mostly been brought in by natives and no accurate record of the finding of any of them exists. They are said to be gathered on the surface and it is not stated that pottery or other objects have ever been found with them, though this is purely negative evidence. These flints Petrie would identify with those of the *solutréen* period in Europe. It is true that he is able to point to a series of parallels between the two groups which, when illustrated on paper, are very striking. But to what exactly does this amount? In both cases we have the products of a very high standard of flint-working. The method of flaking is therefore very similar in the two cases, and the forms evolved are much alike, for the simple reason that they are designed to serve the same purposes. But surely this does not constitute identity, nor even contemporaneity. When we speak of *solutréen* products in France we refer to certain implements of flint, found associated with the bones of certain animals, notably the horse, the reindeer, the mammoth and the cave bear, and frequently in a determinable relation to other deposits, as in the case of Laugerie Haute, where the *solutréen* deposit lies beneath a very definite *magdalénien* stratum.

In the Fayyûm these conditions are not satisfied. All that we have is the flints themselves and the knowledge that they are picked up on the surface of the soil. It would be

¹ In any case it is difficult to find in Chapter XIII of *Prehistoric Egypt* any authority for the division of the predynastic period into two "civilizations."

² *Recherches sur les origines de l'Égypte, L'âge de la pierre et les métaux*, pp. 72-76. Also in his *Ethnographie préhistorique*, p. 28.

easy to show how a judgment by flint forms alone might lead us astray. Thus the leaf-shaped lance-head so typical of the Fayyûm and of Solutré occurs in various forms at Breonio and Rivoli in North Italy, in a stratum which is quite definitely neolithic. In any case, while noting the similarities between the Fayyûm and Solutré, we ought also to notice the differences, and not shut our eyes to the fact that among the commonest flints in the Fayyûm are arrowheads of most varied forms, while at Solutré there is no evidence that the bow was known.

So far then we have nothing to support the temporal equation of the Fayyûm with Solutré except the occurrence in both places of certain types of flint implement.

Now there exists in Egypt certain evidence which bears very closely on this problem and which has nevertheless been curiously neglected. In 1911 the Egypt Exploration Fund excavated at Abydos a prehistoric settlement¹. The remains consisted simply of a thin stratum of dark sand about 30 to 100 cm. below the surface of the desert containing flints, potsherds, bone implements, pieces of bone, beads, etc. It is clear from the pottery that the settlement was still in existence in the later stages of the predynastic period, though it is not certain how far back it may extend. The most striking fact with regard to the objects found here is the extent to which they differ from the objects found in tombs dated by their pottery to the same age. In other words the conclusion forced on us by this and similar discoveries is that the objects found in tombs of predynastic date are not truly typical of those actually in everyday use among the living, the specimens chosen for burial being usually the best obtainable, sometimes even made for the purpose, while the majority of the objects used for rough work by the living were of types rarely, if ever, represented in the tombs.

There is an important corollary to this. When Petrie speaks of the absence of the Fayyûm flint types from the "cemetery age" of predynastic Egypt he is not altogether correct. It is true that they are absent from the cemeteries, but they are not all absent from the settlements of the same date as these cemeteries. This will become apparent to anyone who will compare the flints from Abydos² with those figured by Petrie³. Thus we have from Abydos the flakes worked to a point for boring (Petrie's Type B), the thick flakes bluntly pointed and with a rounded butt (Type E), the prismatic rods worked on all faces (Type G), the small curved knives (Type F, especially Fig. 91), the arrowhead (Fig. 118), and the round scraper⁴ (Figs. 165-168).

Moreover, other predynastic settlements exist besides that of Abydos. One of the most notable is that of Tûkh⁵, a village beside Naqâdah. De Morgan has described the kitchen-middens which exist at this place, and has figured a number of the flints found in them together with bones of animals and pottery "similar to that found in the archaic (i.e. predynastic) cemeteries." Many of the flints found in these kitchen-middens are practically indistinguishable from those of the Fayyûm, as an examination of de Morgan's figures will show. It is not improbable that the kitchen-middens of Khatîarah⁶, which produced similar material, are also to be dated to the predynastic cemetery period, though de Morgan does

¹ *Cemeteries of Abydos*, II, pp. I ff.

² *Op. cit.*, Pl. III.

³ *Ancient Egypt*, 1915, figs. on pp. 73, 75, 77.

⁴ None of Petrie's examples is actually stated to be from the Fayyûm though the type does occur in other parts of Egypt along with flints of Fayyûm forms.

⁵ DE MORGAN, *Recherches sur les origines de l'Égypte, L'âge de la pierre et les métaux*, p. 87.

⁶ *Op. cit.*, p. 88. *Ethnographie préhistorique*, p. 39.

Journ. of Egypt. Arch. VIII

not give us definite evidence of this. At Naqādah itself Petrie found a town of the predynastic period¹ in which, together with "pieces of almost every variety of pottery" known from the predynastic cemeteries, were found flints of the type under discussion. Petrie himself emphasizes their difference from the flints found in the tombs.

The lesson to be drawn from this is as follows. The Fayyūm flints are largely of a type which were being made for everyday use by the Egyptians who buried their dead in the well-known predynastic cemeteries of the Nile valley. On the other hand the fine leaf-shaped lance-head and many of the various arrowhead forms seem to be almost peculiar to the Fayyūm. This fact should deter us from any attempt to assign the Fayyūm flints as a whole to the period of the predynastic cemeteries. But at the same time the facts which we have put forward above make it very dangerous to assign the Fayyūm flints entirely to a period definitely preceding the predynastic, and to deny them any connection with the predynastic people of the cemeteries. The temporal equation with the *solutrén* in Europe therefore seems to us nothing more than a presumption, which may or may not contain a germ of truth.

Having equated the Fayyūm flint period with the *solutrén* in Europe Petrie proceeds to establish his next equation, that between the predynastic cemetery period and the *magdalénien* in France. And here he confuses the issue in a very curious and disconcerting manner. He says, with regard to the products of the predynastic tombs, "The main point to be observed is the close connection with the Magdalenian cave products, and the finest Danish work, suggesting that we may find some synchronism." Now even Petrie himself, who is interested in lowering the date of the *magdalénien* period does not suggest bringing it down below 6000, a date to which many geologists would demur most strongly, while the "finest Danish work" belongs to the Later Neolithic Period in Scandinavia, which is known to have closed little before 1500 B.C. and which, according to the best authorities, is not likely to have opened much before 3000, if as early, long after Petrie's *magdalénien* period in Egypt had come and gone. Under these circumstances it is a little difficult to see how comparisons with periods so remotely apart are likely to assist us in establishing synchronisms of any kind. Still we must see what the evidence amounts to.

The parallels with the *magdalénien* consist firstly of the similarity of "the coarse flakes which abound in the prehistoric graves to the Magdalenian cave type"; secondly of the remarkable resemblance of the neatly made double-ended scrapers of the First Dynasty to a scraper found in the deposit of the Grotte de l'Église in France, which is, be it observed, not *magdalénien* in date but *solutrén*; and finally of the fact that the early predynastic people of Egypt, like the *magdaléniens* of France, used bone harpoons. Surely this is thin ice. Rough flakes with wavy outline and slight chipping on the ends are to be found in practically every neolithic or late palaeolithic deposit known; the parallel of the scraper tells against Petrie's case, for it merely shows how exact a parallel can occur between two ages which on his own hypothesis cannot possibly be contemporary, namely the First Egyptian Dynasty and the *solutrén*, which preceded the *magdalénien*; and the bone harpoon is in use to-day among many primitive peoples such as the Esquimaux, the Fuegians and certain North American Indian tribes who live on the Pacific coast.

It will thus be seen that the case for a parallel between the period of the predynastic tombs and the *magdalénien* in Europe is not very strong. Petrie's parallel between the flints found in the predynastic tombs and "the finest Danish work" need not detain us long.

¹ *Naqada and Ballas*, p. 50 and Pl. LXXI.

since the hypothesis which alone lends any value to the comparisons, namely that "there would probably be no objection to dating the Danish work to 7000 to 6000 B.C. like the Egyptian," is completely at variance with the evidence of the tombs in which this finest Danish work is found. These tombs date from very late in the Later Danish Neolithic Period, verging on the metal age, which is believed to have begun in Scandinavia as late as 1500 B.C. In the Earlier Neolithic Period, the era of the kitchen-middens, they are not found.

The comparisons in themselves are far from decisive, though in both countries we find delicate ripple flaking side by side with "vague surface flaking or scaling," and though the method by which the Danes produced the criss-cross ridges on the handles of some of their daggers was also known to the Egyptians.

Quite lately Petrie has tried to justify this high dating by coordinating his own results with those obtained by de Morgan at Susa in Persia. In the lowest stratum of the mound at Susa, de Morgan found fine painted pottery associated with flints which Petrie states to be "clearly of the Solutrean types, like the Fayyûm flints of Egypt, especially the lance-headed flints, rather thick, with finely notched edges¹." Here again far reaching conclusions are based on a few parallels in flint-forms, the only one of which is at all striking is the leaf-shaped lance-head². It is true that this fits in with the very remote dating (7000 B.C.) at first suggested by de Morgan for this early stratum at Susa³, and subsequently by Pumpelly for somewhat similar pottery found in Turkestan. But this high date is based on nothing more than the facts that the civilization found in this stratum at Susa appears to be more primitive than anything yet known in Mesopotamia, and that the stratum itself lies at a depth of 25 metres from the surface. The first fact need hardly force us back far beyond 4000 B.C. and the second proves nothing, for every excavator who has any experience of stratified sites is aware that the thickness of strata is but a treacherous guide to the length of time which they represent, so various and complicated are the circumstances which govern the rate of accumulation. For this reason archaeologists as a whole are not prepared to treat as anything more than hypotheses, and rather improbable ones, the immensely high dates given by de Morgan and Pumpelly for the earliest remains at Susa and Anau respectively.

When therefore we find a few similarities in flint forms used as a basis for the categorical statement that "the Elamite civilization developed in the Solutrean Age⁴, a whole cycle before the Egyptian development in the Magdalenian Age⁵," we can only record the pious hope that in the near future we archaeologists may be able to come to some agreement as to the nature of our reasoning, which surely should be governed by precisely the same rules as in any other science, and yet apparently is not.

The fallacy latent in the line of argument above criticized would appear to consist in the assumption that certain types of flint must wherever found belong to a certain age in the world's progress. It is almost unconscious. We label the leaf-shaped lance-head *solutrén*

¹ *Ancient Egypt*, 1917, p. 32.

² *Délégation en Perse*, I, figs. 414-416.

³ PUMPELLY, *Explorations in Turkestan*, Vol. I, pp. 50-57. His date of 8000 B.C. for the beginnings of the Early Culture at Anau is based solely on the rate of accumulation of culture strata. Hubert Schmidt, the archaeologist in charge of the excavations, suggests a date of about 3000 B.C. or less, *op. cit.*, p. 186.

⁴ Petrie appears to have overlooked the fact that the "*solutrén*" lance-head at Susa does not occur in the lower levels of the earliest stratum, but appears along with the arrowhead in the upper levels in a full aeneolithic milieu (DE MORGAN, *Les premières civilisations*, p. 197; PUMPELLY, *op. cit.*, pp. 73-4).

⁵ *Ancient Egypt*, 1917, p. 36.

because admirable examples of it occur on true *solutrén* sites, and we then proceed, whenever and wherever we find this type of weapon, to date it to the *solutrén* period purely because of its shape, without asking ourselves whether such a date can be supported by the circumstances in which it is found, or the fauna and artifacts which accompany it. The more one studies the flint implements of all places and periods the more obvious does it become that they are dangerous things to argue from. Pottery is safer, but even here there are pitfalls, and it would save much wasted time and trouble if archaeologists would avoid describing two wares or types of ornament as identical when they only mean similar, and if they would lay aside the assumption that all white-filled incised wares either belong to the same period or have a single origin. The corrective in this case is undoubtedly more experience. If we all studied, for instance, early American and primitive modern pottery as we ought we should realize far better than we do how many resemblances are fortuitous which we now firmly think due to racial or commercial contact, and we should even perhaps be able to draw up certain general principles which would help us in interpreting our ceramic evidence, if only by teaching us what kind of arguments to avoid as delusive.

3. "Kha^c-hetp-re^c" (Sebk-hotpe V). Glazed steatite. Wing-cases marked. Dyn. XIII. There are four other scarabs of this king, one at University College (PETRIE, *op. cit.*, 13. 24), one in the Cairo Museum (NEWBERRY, *op. cit.*, x, 16), one in the Louvre, and one in the Chicago Art Institute (formerly in the Murch Collection).

4. "The good god Mer-nefr-re^c" (Ay). Glazed steatite. Wing-cases marked. Dyn. XIII. Scarabs of this king are comparatively common (NEWBERRY, *op. cit.*, x, 18-20; PETRIE, *op. cit.*, p. 36). We have two others in New York, which, like this one, were found at Lisht in the neighbourhood of the pyramid of Amenemmes I.

5. "Swas-en-re^c." Glazed pottery. Wing-cases not marked. Dyn. XIV?

Ten other scarabs of this king are known (see PETRIE, *op. cit.*, 14. 69 and p. 36). They are all of pottery and of very crude workmanship.

6. "The Great Queen, united to the beauty of the White Crown, Yeni." Glazed steatite. Wing-cases marked. Dyn. XIII.

Eight other scarabs of this queen are known (see NEWBERRY, *op. cit.*, XII, 4 and 5; PETRIE, *op. cit.*, Pl. XIX and p. 36).

7. "Royal Son, Sebekhotpe, repeating life." Glazed steatite. Back broken away. Dyn. XIII. In the Golenischeff Collection there is another scarab of a prince of this name.

8. "Judge, Instructor of the Scribes, Ren-senb." Glazed steatite. Wing-cases marked. Dyn. XIII.

A number of other officials of this name are known from scarabs. See *e.g.* PETRIE, *op. cit.*, Pl. XVI, 13 J; NEWBERRY, *op. cit.*, Pls. XI, 23, XVI, 24, and XVII, 28.

9. "Royal Sealer, Chief Steward, Royal Attendant, Rdey-n-ptah." Glazed steatite. Wing-cases marked. Dyn. XII-XIII.

We have in New York a second scarab of this same official (NEWBERRY, *op. cit.*, XIII, 22). Four other officials of the same name occur:

(a) "Royal Sealer, Royal Friend, Keeper of the Seal." Two of his scarabs exist (NEWBERRY, *op. cit.*, XI, 12, and PETRIE, *op. cit.*, 13 CH), the first at the British Museum and the second at University College.

(b) "Royal Sealer, Superintendent of the Domains" (NEWBERRY, *op. cit.*, XIV, 10 = PETRIE, *op. cit.*, 12 H). University College.

(c) "Doctor." Two scarabs are known. One is figured in NEWBERRY, *op. cit.*, xv, 19; the other is in the Chicago Art Institute.

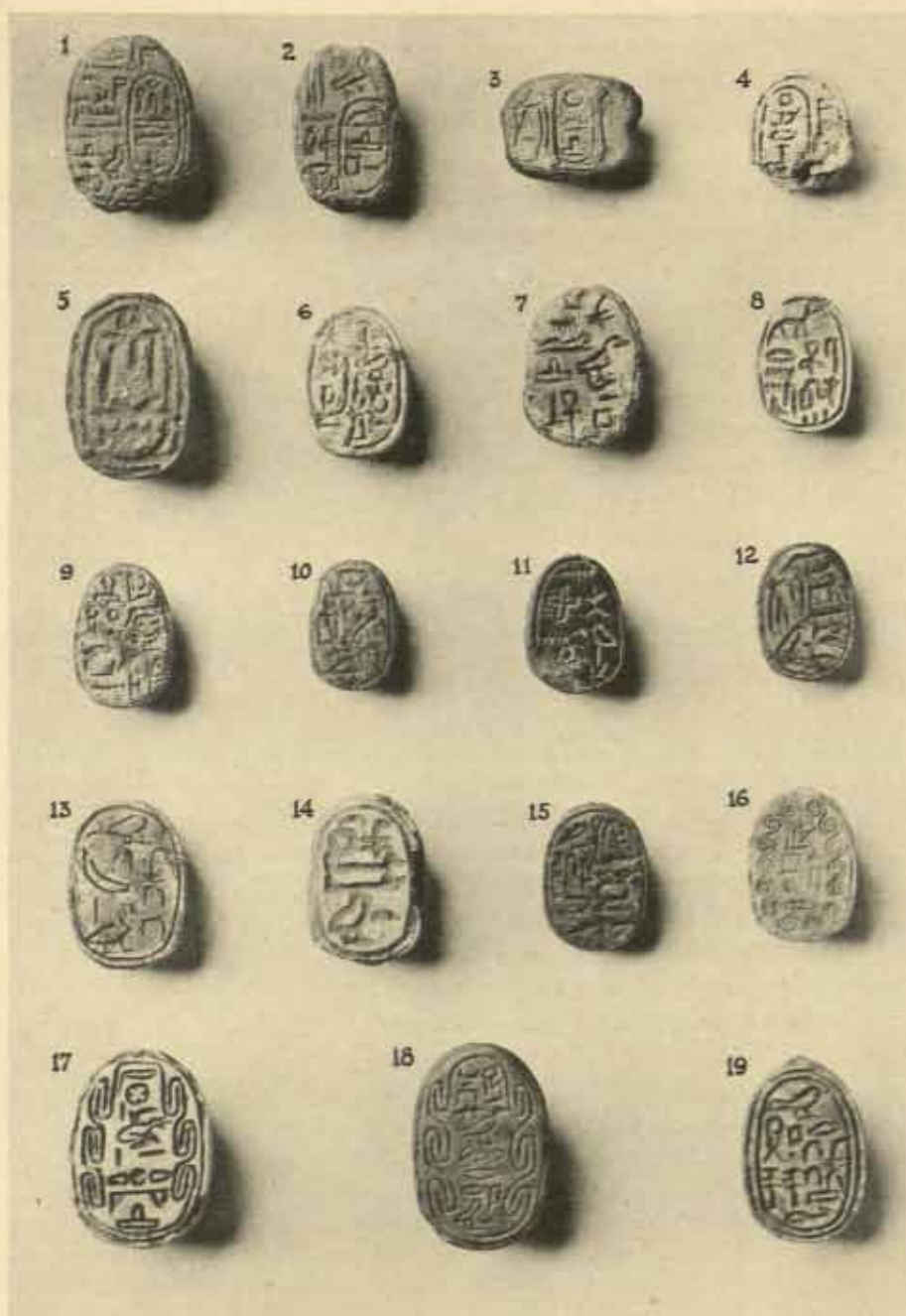
(d) "Royal Scribe of the ..." (NEWBERRY, *Proc. Soc. Bibl. Arch.*, xxxvi, May 1914, Pl. X, figs. x and x, i).

10. "Lady of the House, Sit-hathor." Glazed steatite. Wing-cases marked Dyn. XII-XIII.

11. Title and name doubtful. Glazed steatite. Dyn. XII-XIV.

12. "Superintendent of the Interior, Superintendent of the Delta, Mesut." Glazed steatite. Wing-cases marked. Dyn. XIII-XIV.

We have in New York a second scarab of this official (formerly Murch Coll.). He is also referred to on a stela in the Cairo Museum (LIEBLEIN, *Dict.*, 1875; MARIETTE, *Cat. Abydos*, No. 905, LANGE u. SCHÄFER, *Grab- und Denksteine*, No. 20562).



SCARABS FOUND AT LISHT

13. "*Great one of the Southern Tens, Si-yo^{ch}.*" Glazed steatite. Wing-cases marked. Dyn. XII-XIII.

In the Ashmolean Museum there is another scarab of the same official (NEWBERRY, *Scarabs*, xv, 22).

14. "*Royal Friend, Didut.*" Glazed steatite. Wing-cases marked. Dyn. XII-XIV.

In the British Museum there is another scarab of this official (*op. cit.*, xii, 11). The same name also occurs on a heart scarab at University College (PETRIE, *op. cit.*, XLVII, 8).

15. "*Chief Scribe of the Vezir, Ay, possessor of merit.*" Glazed steatite. Wing-cases marked. Dyn. XII-XIV.

16. "*Guardian of the Storehouse, Senb.*" Glazed steatite. Wing-cases marked. Dyn. XII.

In the Cairo Museum there is a second scarab of the same official (NEWBERRY, *op. cit.*, XLIII, 29), and we find a reference to him on a stela in Florence (LIEBLEIN, *Dict.*, 146), dated to the reign of Amenemhat III. Five other scarabs give the same name but different titles:

(a) "*Instructor of the House of Life*" (NEWBERRY, *op. cit.*, XIII, 34). Cairo Museum.

(b) "*Ser Hayt*" (*op. cit.*, XVI, 11). British Museum.

(c) "*Attendant*" (*op. cit.*, XVI, 20). Berlin Museum.

(d) "*Royal Sealer, Superintendent of the Prison*" (*op. cit.*, XLIV, 23).

(e) "*Guardian of the House of Workmen*" (PETRIE, *op. cit.*, 12 AU). University College.

17. "*Governor of the City, Vezir, Min-hotpe.*" Glazed steatite. Wing-cases marked. Dyn. XII.

This important official is otherwise unknown.

18. "*Guardian of the Storehouse, Keeper of barley (?) Neb-yerut.*" Glazed steatite. Wing-cases marked. Dyn. XII-XIII.

19. "*Great One of the Southern Tens, Zed-ptah, true of voice.*" Glazed steatite. Wing-cases marked. Dyn. XII-XIII.

At University College there is another scarab of this official (PETRIE, *op. cit.*, 12 Z). A priest of the name is referred to on a stela in Cairo (LIEBLEIN, *Dict.*, 1088).

EL-KÂB AND ITS TEMPLES¹.

By SOMERS CLARKE, F.S.A.

1. REMAINS OF ANTIQUITY BEYOND THE CITY WALLS.

THE grouping of the places of archaeological interest which, centred round El-Kâb, assist in proving the high antiquity and importance of the place, cannot be realized unless we can study a good map. This map, the work of Mr F. W. Green, is now offered for the inspection of the reader, Pl. IV. We are at once met with a phenomenon which not unfrequently presents itself to our attention on archaeological sites in Egypt. We find a place wherein must have been settled a very considerable population, and yet we cannot see any sufficient area of cultivable ground to support so large a community. A few thousand years ago the level of the Nile, even at full flood, was several metres lower than it is now. To increase the cultivable area of Egypt at this day the extension of irrigation by raising the level of water delivery is a constant problem. The plains of Kôm Ombô, which one recollects as unproductive desert, are now a source of life to many thousands of people; this is due to lifting the water by the agency of large pumps, such machines as were entirely unknown to the ancients. Our difficulty is increased when we reflect that, especially in Upper Egypt, there is found in many places not a deep, rich alluvial soil but a comparatively thin layer of deposited mud, over which the Nile does not flow without the aid of human labour, and where salt abounds. It was on precisely such a site that the ancient settlement forming the nucleus of El-Kâb was established.

There are in sundry places evidences of land water flowing towards the Nile from the east; this water is in nearly all cases more or less salt, by which fact we are led to conclude that water for cultivation must always have been derived from the Nile, and that the desert spaces we see between the present cultivation and the foot hills have never been of use. No fertilizing streams came from the many valleys which open out from the Arabian chain of mountains.

The map should be studied in relation to that which formed the important feature of El-Kâb in days gone by, namely the slight eminence on which is planted the Temple Group. In the previous article a sketch plan was given of the early town, standing as it did on the Nile bank and in course of ages half consumed by the river moving its bed towards the east².

At A in Pl. IV stands the central group of temples with the sacred lake and enclosing walls, the temples here indicated being those of the Eighteenth and Twenty-sixth Dynasties. At C is a stone platform from which the groyne³ projects into the river, whilst at D we see part of the enclosing wall of the more ancient town. The cultivable land to which we have before referred, is seen extending by the river side both up and down the stream. It may be stated that at the present time, when there is no town at El-Kâb, the crops are frequently insufficient for the inhabitants of the villages.

¹ Continuing the author's paper on *El-Kâb and the Great Wall*, *Journal*, VII, 54-79.

² *Journal*, VII, Pl. X.

³ *Journal*, VII, 69.

MAP OF DISTRICT OF EL KAB

SURVEYED & DRAWN BY
F.W. GREEN, 1896.

Scale, 1:20,000

Metres
0 100 200 400 600 800 1000

Reference

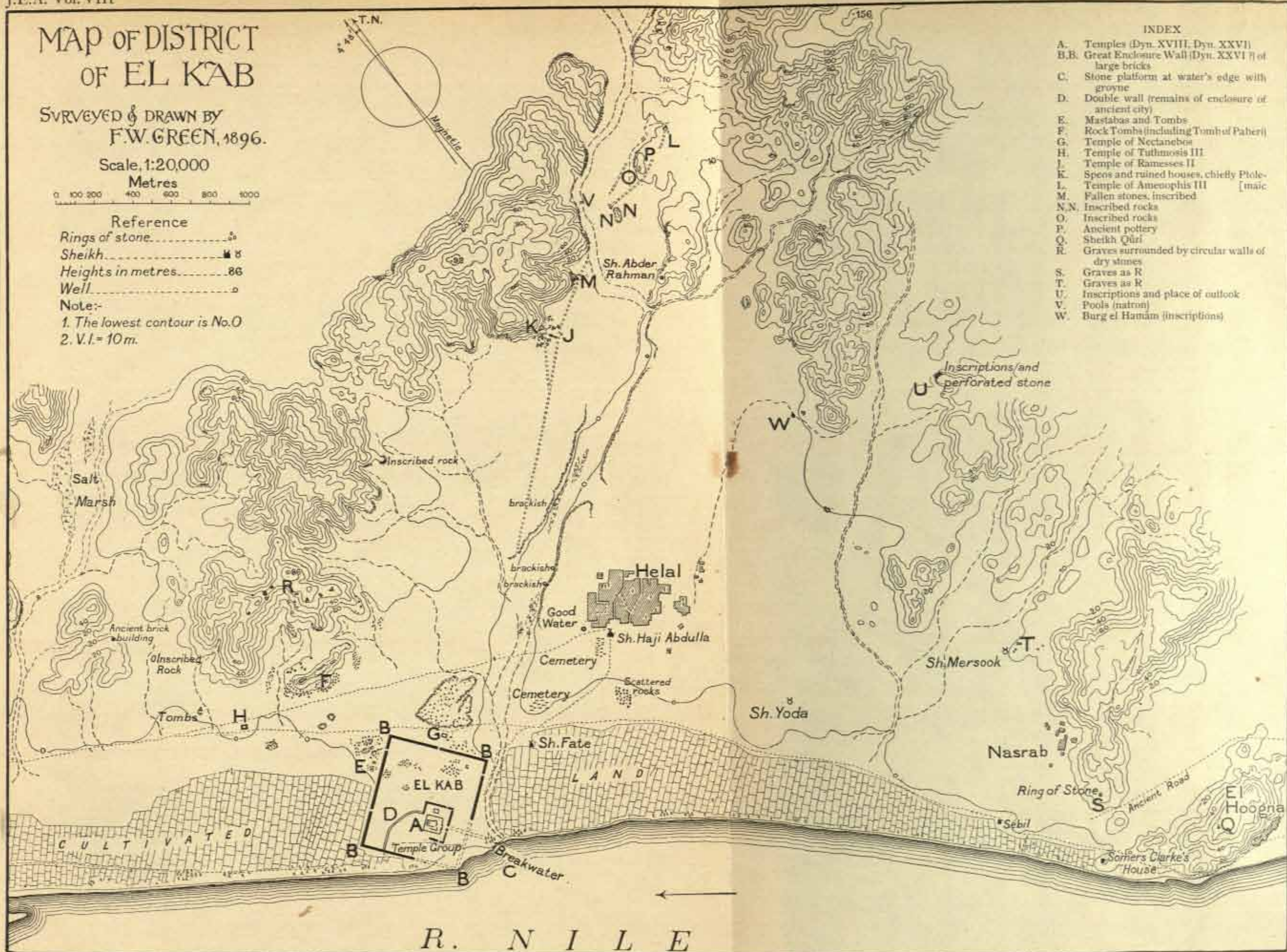
Rings of stone.....
Sheikh.....
Heights in metres.....
Well.....

Note:-

1. The lowest contour is No. 0
2. V.I. = 10m.

INDEX

- A. Temples (Dyn. XVIII, Dyn. XXVI)
- B.B. Great Enclosure Wall (Dyn. XXVI) of large bricks
- C. Stone platform at water's edge with groyne
- D. Double wall (remains of enclosure of ancient city)
- E. Mastabas and Tombs
- F. Rock Tombs (including Tomb of Paser)
- G. Temple of Nectanebos
- H. Temple of Tutmosis III
- I. Temple of Ramesses II
- K. Spas and ruined houses, chiefly Ptole-
- L. Temple of Amenophis III [maic]
- M. Fallen stones, inscribed
- N.N. Inscribed rocks
- O. Inscribed rocks
- P. Ancient pottery
- Q. Sheikh Qūri
- R. Graves surrounded by circular walls of dry stones
- S. Graves as R
- T. Graves as R
- U. Inscriptions and place of outlook
- V. Pools (natron)
- W. Burg el Hamām (inscriptions)



R. N I L E

But the importance of the place far back is further attested by the numerous tombs and the additional temples which we will proceed to point out.

At E is a group of large mastabas and other tombs¹, and at F are numerous rock-cut tombs ranging from the Twelfth Dynasty and onwards, many of them very well known².

In addition we find other temples. At G is a small temple bearing the cartouche of Nectanebos; this stands immediately outside the east or desert gateway referred to in my account of the Great Wall of El-Kâb³. To the north at H are the remains of a small peripteral temple of Tuthmosis III which was destroyed so recently as in the first quarter of the nineteenth century.

At I, K are two more temples planted by the side of the ancient road, which still exists going towards the east and terminating at L in the admirably preserved little temple of Amenophis III⁴.

A study of the map shows us that El-Kâb stood in the wide mouth of a valley, the plain being enclosed on the north and south by ranges of rugged sandstone hills. Near to, and a little east of the temple of Amenophis III these two ranges almost meet, a water channel lying between them, bearing down from time to time a very violent torrent which has its exit to the Nile just south of El-Kâb.

A few words should be said about the ancient roadway leading from El-Kâb towards the east.

Immediately that we have passed the temple of Nectanebos we skirt a considerable burial ground of the Twelfth Dynasty⁵, and presently find ourselves crossing a place somewhat marshy and with pools of exceedingly brackish water. At this place, and still more in a valley lying to the north-east of Maḥâmid, considerable deposits of natron are found; natron also shows itself in large white patches on the faces of sundry neighbouring cliffs. The natron of El-Kâb seems to have been in much repute in old times. Professor Golénischeff has kindly sent me a note on the subject which I here insert:

"Deux mots désignant le natron, *hosmen* la matière brut, et *bed* probablement la matière purifiée, employée en solution, se rencontrent quelquefois mis en rapport avec la ville de Nekheb = El-Kâb. Ainsi DUEMICHEN, *Geographische Inschriften*, I, pl. xxxv, on lit: 'il a aspergé ton temple de *bed* de Nekheb,' et le papyrus No. 3 de Boulaq, p. 5, l. 12 (cf. BRUGSCH, *Dict. Géogr.* 355) mentionne 'la déesse Nekhabit, qui n'est autre que la déesse Hathor, vient à toi du Pays de la Haute Égypte (*ḥt šmꜥ*) et t'apporte le *hosmen* qui provient de La Vallée.' Cette 'Vallée du *hosmen*' à Nekheb est aussi citée chez BRUGSCH, *Dict. Géogr.* p. 45."

Proceeding eastward we ascend slightly and find ourselves upon a clearly marked roadway flanked on either side by a low continuous mound formed, no doubt, by the gravel and coarse stuff scraped from the surface in making the road, and forming a sort of trottoir on either hand.

Coming very near the foot of the gebel at K we see the ruins of roughly built but regularly arranged houses constructed of pieces of stone picked off the desert and imperfectly

¹ See QUIBELL, *El Kab (Egypt. Research Account, 1897)*, Pls. VII, VIII, IX, XXIII, etc.

² The tombs of Paheri, Reni and Sebeknekt have been fully published by J. J. TYLOR in three volumes of the *Wall Drawings and Monuments of El Kab*, that of Paheri also in the eleventh memoir of the Egypt Exploration Fund.

³ *Journal*, VII, 68.

⁴ This last is published in a special volume of the *Wall Drawings and Monuments of El Kab*.

⁵ QUIBELL, *El Kab*, pp. 13, 14.

stuck together with such poor mud as the neighbourhood afforded. These ruins are arranged on either side of a broad way set at right angles to the face of the gebel. This way seems provided to connect a Ptolemaic speos and temple, partly built up against the gebel and founded by Ptolemy IX (Euergetes II)¹, and a small square structure² bearing the cartouches of Ramesses II, commonly known as the Hammâm. The houses were covered in with tunnel vaults, the bricks especially made for such a purpose still lying about; they do not indicate by any elaboration of plan that they were ever more than a military or possibly monastic settlement. The stone work of the speos is most liberally scored with crosses and other Christian emblems, whilst large quantities of Roman and Coptic pottery are lying around. The lay out of the place suggests that its origin is military, standing as it does on the "road to the mines"; and its position is such, so uncomfortable, so well removed from water, that no doubt it commended itself to the ascetics of the Thebaid, those worshippers of squalor, dirt and discomfort.

It seems to be generally admitted that El-Kâb did actually lie at the river end of a road leading to the mines, but is it known what course that road took, has the road ever been traced and to what mines did it lead? Is there not something here for Egyptologists to make clear?

The upper part of the little edifice of Ramesses II called the Hammâm, was evidently ruined at an early date and reconstructed. No inscription tells the date of this reconstruction, but the masonry and tool-marks indicate a Ptolemy. The building faces to the east and has had a portico built before it of which only the ground plan can be made out, but this portico, the Ptolemaic temple above referred to, and the similar addition made to the western front of the neighbouring temple L of Amenophis III all tend to impress upon us how much building activity was carried on at El-Kâb into quite a late period.

We must now return to the roadway and may observe at M several pieces of fallen rock on which are a few hieroglyphs and a considerable number of figures of boats, animals and other things of an early type bruised on the rock with hard stone.

Passing eastward we lose trace of the roadway. This has been completely obliterated by the occasional torrents. Crossing the torrent bed we come to an upstanding rock, N, N. The torrent now makes its occasional passage on the north side of this rock but in times past has clearly flowed in great volume on the south side. The rock bears on its face a vast quantity of inscriptions, also prehistoric boats, men, animals, etc.

At O lies a low ridge of rock also bearing a large body of inscriptions, some of a very early type. At P may still be seen considerable remains of ancient pottery, greatly diminished in quantity during the last few years.

On the north side of the valley at V a tank has been sunk in the rock and steps leading down. The water in this tank is very salt. At the time the torrent flows down the valley, which I am told occurs about once in fifty years (I saw the last downpour in 1901), this tank is quite submerged.

The map was made in 1896 at which time the railway from Luxor to Assouan had not been begun. An ancient roadway, now quite obliterated by the railway, could be traced lying east of the cultivated land, parallel with the river. This road can still be clearly seen and is in frequent use behind the isolated hill at El-Huqnah, on the top of which stands the domed tomb of Sheikh Qûzi. This piece of the old road has happily escaped the attentions of the railway makers. Below the dome of Sheikh Qûzi, Q, towards the river, are

¹ LEPSIUS, *Denkmäler*, I, 101 (plan); Text IV, 38.

² Plan only, *ib.*

remains of a thick wall of large bricks on a foundation of stone. In the cliff overhanging the Nile is a tomb cut horizontally into the very bad sandstone cliff. Doubtless the rough surfaces of this tomb were originally plastered, as was the case with the interior of so many of the tombs in the range at F. The passage of time and the crumbling of the sandstone rock have obliterated all inscriptions or wall drawings. May it be that the thick wall was built to enclose this tomb on the land side, the steep cliff forming its protection towards the river? The tomb must have been one of considerable importance if we are to judge by the massiveness of the enclosing wall. The position of the wall precludes the idea that it was a structure for defence. It is evident that this hill, crowned by the dome of Sheikh Qûzî, was made use of as an outlook, a point we shall come to later on.

But not only are there many mastabas and tombs large and small of the Egyptian manner to be found, chiefly grouped at F and in the valley behind it, within the enclosure wall of El-Kâb, and near the temple marked G; but upon many of those shoulders of the hills as at R, S, T are tombs of a very primitive type. Rings of rough stone, picked from the hill tops are placed round the shallow graves. Mr Green describes these as "rings of stones," or "graves surrounded by circular walls of dry stones." It is rather a compliment to describe these roughly placed stones as "walls." The number of these graves on the hills at R is quite considerable. Assisted by Dr Schweinfurth we examined many; we found in the shallow graves a few bones, which Dr Schweinfurth considered to be human, very dilapidated; but nothing whatever by which an approximation to a date could be made¹. It seemed probable that all had been rifled and very likely that jackals, wolves, etc., had finished the work; indeed in such shallow graves the wild animals may have done all the necessary rifling. On the opposite side of the Nile, west of Hieraconpolis, similar types of burial may be seen upon the Libyan hills.

Let us return to the roadways. That which we cannot fail to observe and have described above, runs away eastward. Another, now obliterated by the railway to Assouan, ran more or less parallel with the Nile and is still very manifest in the valley behind Sheikh Qûzî. I have been along, on the east side of the Nile, nearly all the way from Luxor to Assouan, and Assouan to Halfa; the whole way we come upon traces of the ancient roadway, and upon most likely places we find inscriptions cut upon the outstanding pieces of rock; or in many cases semblances done by bruising with a hard stone, of animals, boats, men, etc., commonly called "prehistoric." Are they all prehistoric? In the valley behind El-Kâb, in addition to the rock inscriptions at M, N and O, we find another collection at W. Here there stands a sandstone rock full forty feet high and completely isolated from the hill close behind it. At shoulder height and on the side of the rock looking towards the Nile is a series of hieroglyphic graffiti, including the cartouche of King Pepi II. On the other side of the rock are many so-called prehistoric figures of beasts and men². This rock is known as the Burg el-Ĥamâm or "pigeon-house." A foot track passes by this rock which is occasionally used by those who, coming from higher up the river, are making their way to Luxor; they save a considerable distance by deserting the river bank.

At U on the back of a little recess cut on a low hill side is still clearly to be read the

¹ See however SCHWEINFURTH *Gräber der Bega in Zeitschrift für Ethnologie*, xxxi (1899), 538 et seqq., and his recently published *Auf unbetretenen Wegen in Aegypten*, ch. vi.

² We must not forget that the bronze figure of Pepi II, now in the Cairo Museum, was found at Hieraconpolis, so we may be justified in believing that his interests were extended to both sides of the Nile.

name of Cheops of the Fourth Dynasty¹. The surface on which this is incised, like that on which most inscriptions at the Burg el-Hamâm are inscribed, appears so frail that one cannot at first credit the antiquity of these little things.

From the Burg el-Hamâm another track leads through little rocky gorges and, avoiding the hill on which stands the dome of Sheikh Qûzi, comes out upon the Nile near to Edfû.

A thing which helps us to realize the importance of El-Kâb in remote times is to take a note of the various watching-places which must have been established for sentinels. Let us begin near to El-Kâb itself.

On the top of the hill of tombs marked F on Pl. IV, has been a structure of some size, built with large bricks and giving a most comprehensive outlook. It is quite possible and indeed very likely that this building has been patched and resuscitated several times; there are the large bricks to do it with lying just below, but the style of parts of the work suggests a high antiquity². If we follow along the river bank southward we arrive, at Q, at a most commanding headland, and here again we find remains of a structure of large bricks from which the road up and down the river is completely commanded, and from which it would have been easy to signal, not only to Hieraconpolis on the west, but to give warning to El-Kâb itself. From the point U the land-roads from Luxor could be observed and at the same time El-Kâb was well in sight.

2. THE SITE OF THE TEMPLES WITHIN THE CITY.

At the time that our work of investigation was begun (January 16, 1895), the Temple Group, marked A on the map, Pl. IV, presented for the most part a fairly even surface of stone fragments; in a few places pieces of wall declared themselves and at the northern end were, and still are, a few blocks which had formed part of the stone ceiling of the three sanctuaries of the temple of the Twenty-sixth Dynasty.

Perhaps the earliest notice of the Temple Group giving some little detail, is to be found in the *Description de l'Égypte*³. On the temple platform the travellers observed two ranges of three columns each still surmounted by their architraves (evidently in the Hypostyle Hall), walls with roof-slabs 4.0 m. long in position, and other remains. At the time of Belzoni's visit likewise standing columns were seen (and drawn by him), roof or ceiling stones were still in position and many other considerable fragments existed⁴. These were subsequently knocked down and reduced to their present state of degradation during the enlightened administration of Mehemet Ali and Ismail. Materials for the building of sugar factories being required, the stones worth taking for that purpose were appropriated.

The sandstone of which the temples were built was quarried for the most part from the neighbouring hills. It is a miserably weak stuff and doubtless, with the rough procedure made use of when the temples were pillaged more stone was broken than was taken away. In result, the floor of that part of the temple which had been roofed, was now covered to a depth of at least a metre with broken fragments, whilst the columns of the Hypostyle Hall were ground down or broken to the same level, thus leaving but little trace of the unusual and rather elaborate plan now revealed.

¹ Published by Prof. SAYCE in the *Proceedings of the Society of Biblical Archaeology*, xxi (1899), 108-110 and Pl. I.

² See a reference to this building in *Journal*, vii, 61 extracted from a book published in 1743.

³ (Ed. PANCKOUCKE) *Antiquités* i, Pl. 66, Texte i, 347-9.

⁴ *Plates illustratives of the Researches and Operations*, Pl. XLI. *Narrative*, pp. 219-220.

Of particular value to me in recovering the plan were the collections of drawings and notes of El-Kâb made by Hay and Burton in the first quarter of the nineteenth century and now preserved in the British Museum Add. MS. 25632, 25647, 25648. Among them is a rough plan of the Temple Group with many notes (drawing no. 4 in 25647) and a plan of the Group drawn roughly to scale (drawing no. 9 in 25648); I would likewise mention the Lane drawings Add. MS. 34083, 34086 vol. iv, especially a View of Eileithya in the latter volume.

It may here be stated that in clearing the sanctuaries we found that sundry of the doorways in this part of the temple had been built up with crude brickwork. We also found evidences of burials in the Hypostyle Hall, the graves being formed of thin, crude-brick walls, resting on the pavement of the hall. We could not find traces of part of this hall having been adapted for a church. One must presume that the interior was in the customary way used as a shelter for houses and the pavement being soon covered with earth the graves would not, when they were made, appear to be above ground level. They were made before the roof slabs fell in, as fragments of these were lying over the graves. Pieces of, apparently, Roman glass were also found.

Before we begin to describe the Temple Group and give the result of the excavations, it will assist the reader if a general description of the site be given. This cannot be done better than by quoting the words of Mr F. W. Green¹:

"The sections laid bare by the trenches and pits shew that the temples were built on a small elevation of yellowish sandy clay. The great enclosure wall stands on, for the most part, and encloses, similar sandy clay. On the top of the before-mentioned small elevation a layer or bank of sand was accumulated in prehistoric times. During the formation of this bank the part on which the temples now stand was not set apart as a sacred spot. The ash jars found here seem to have been used merely for domestic purposes, their contents hardly suggesting offerings made to the local gods. The surface of the ground, which has been dug over by the *sabbakhin* and which towards the N. and E. is enclosed by a curved double wall, presents a very tumbled appearance, consisting of shallow depressions with piles of potsherds and stones. Amongst these may be found stones used for pounding, oblong stones on which wheat was ground, occasionally vase-borers and diorite axe-heads of the archaic period.

"From the examination of the sections exposed in the pits and trenches, we are able to get a very fair idea of the history of the town of El Kab.

"The absence of any remains in the lower strata later than the archaic period, on the spot where the temples now stand, shews that it was regarded as holy at an early period, at which time it must have presented the appearance of a sandy elevation rising slightly above the surrounding *gebél*. It does not appear to have been fenced in till after the prehistoric period, as the 'ash jars' found in the upper stratum of the sand layer seem, judging by their contents, to be merely domestic vessels and not offerings deposited on a sacred spot. At some time, however, in the early historic period the elevation was set apart as sacred, as the strata formed by the Old Kingdom town, which must have grown with rapidity in or about the IIIrd Dynasty, occupied a roughly circular space, one quarter of which is now enclosed by the double wall. The rest must have extended westward on ground now occupied by the Nile, but which at the beginning of the Old Kingdom was dry land. That this is the case may be seen from the sections exposed in the Nile bank, west of the south west angle of the temple enclosure [*i.e.* wall Y on plan in *Journal*, vii, Pl. IX]. The old town must also extend under the great enclosure wall from the point where it cuts the curved double wall and from thence towards the river. The curved wall may be either the original Old Kingdom one, or a later wall following its course which, skirting the north side of the little eminence on which the temples stand, bent round passing where is now the great enclosure wall and so westward to the ground now covered by the river. The two small walls on the east side of the temples may have been part

¹ *Annales du Service des Antiquités*, tom. vi, 261 *et seq.* As I have adopted a different method of orientation from Mr Green, less exact but I think more convenient, I have here and there altered his statements a little.

of this. I think there is evidence that the high walls pass over the curved ones. [This was afterwards proved to be the case. See the plan Pl. IX cited above.] That some sort of temple enclosure existed before the one now standing I think probable, but its orientation may have been slightly different from the axis of the present temples and did not enclose the sacred lake but kept along the line of the double walls above mentioned. Perhaps the town wall was made to serve as part of the temple enclosure at this point. The desire to follow the old wall as far as possible has given rise, I think, to the bend which the enclosure wall of the temples makes at the axis of the large temple."

So far Mr Green. Let us now refer to the map of El-Kâb, Pl. IV, and it will be seen that at the east of the ancient town there stands the group of temples the detail of which is shown in Pl. V¹. Two of these lie side by side. They are surrounded by a wall which for convenience I will call wall X, enclosing a rectangular space. In the extreme south-east corner of this enclosure we find the remains of a small temple, A, its axis at right-angles with those of the large temples. Outside this wall lies yet another, Y, not so accurately laid out as a rectangle. The wall Y encloses not only all that has been before described, but also the sacred lake which lies to the east of the temple group, and in addition a building, B, set on a low mound, the axis of which is at right angles with the axis of the large temples, but its plan leaves the use of the structure a matter of conjecture. Nearly two-thirds of the north part of the wall Y is destroyed and more than half of the west wall; the north-west angle of the enclosure where the walls met, is utterly gone.

It will be observed that the still surviving part of the double wall which had heretofore enclosed the ancient town was cut across at right angles by the northern section of the wall Y; that, on the other hand (as Mr Green has stated), the north-east part of wall X which embraced only the temples, was almost if not actually on the line of the double wall. The sacred lake is thus left outside and now lies between walls X and Y. Is it unreasonable to surmise, as Mr Green does, that the eastern section of the wall X really represents the enclosure of the temples in the days when the town was shut in by its double walls and the temples were grouped on a slight eminence within the double walls; and that at a later period, very considerably later as I believe, the larger enclosure-wall Y was carried right into and over part of the old town? The same autocratic hand that decided to cut through the very middle of the old town by building the great enclosure walls exercised its power in taking possession of a part of the town itself and converting it to the use of the enlarged and glorified temples.

It will be seen that there are four gateways to be traced through the wall Y, each of them placed in some relation to the temples within. In the east wall is a gateway and one corresponding opposite in the west. The lowest courses of stone work still remain *in situ* in each case. The south wall is pierced by two gateways close together. One of them is on the axis of the larger temple which, as has before been shown, is undoubtedly the axis of its far older predecessor. The other is, approximately, on the axis of the smaller temple. Immediately to the west of the temples and still enclosed by the wall Y we find remains of brick walls of considerable mass and length. Two of these lie parallel with each other, but what they may have been a part of it is now impossible to say, so thoroughly has all this region been exhausted by the *sabbākhn*.

The foundations of a small square structure, D, can be traced immediately to the north of these walls. It may represent the site of a little temple. There are also in front of the smaller temple, that of Amenophis II, remains of foundations which are suggestive of a little temple, E, but standing very much in the way of the entrance.

¹ See also the plan of El-Kâb, *Journal*, VII, Pl. IX.

The north block of the wall Y still rises, just at the point where it cuts the old double wall, some eight metres above the ground. It was up to a hundred years since and less, almost buried by the mounding up of houses against it¹. Evidences of its condition at that time can be traced upon its surface, but all these are fast disappearing, and indeed it cannot be long before the few large pieces still remaining of this wall entirely collapse. The lower courses of it, eaten by the salt and dampness from infiltration, are yielding to the pressure above. Parting in the midst considerable slices of the wall have slid forward at their base and now recline against the portion that still maintains its verticality. Other parts are leaning forward out of the vertical and threaten before long to totter and fall to destruction.

Of the east part of wall Y all the upper portion has fallen, and the south wall can in many parts only be traced by the spade, whilst the west is a little less ruined. But where, as shown on the plan, the north and west walls are gone, they are absolutely removed and pits of a considerable depth, over which is still scattered a mass of broken potsherds, take the place of the mound which heretofore rose so high as to cover the great enclosure-wall of the town. The *sebâkh*-diggers have indeed committed devastation in this place.

It may here be mentioned that in the year 1904, we sunk a sounding-pit partly on and partly inside the line of the west wall of the Great Enclosure, B on Pl. IV, where it had been destroyed, about 30 m. from the river bank. The spot is marked G on the plan of El-Kâb published with the description of the results in the *Annales*² and is close to the little square house (with a dome, belonging to the Department of Antiquities) shown on our map, Pl. IV. Supposing, as I do, that the great wall is contemporaneous with the large temple, *i.e.* of the Twenty-sixth Dynasty, the surface level on which the wall was placed would, when not covered by the houses of the town, be below the present surface level, whilst the mass of earth formed by the houses, becoming in the passage of time more and more soaked by successive Nile floods, would yield more and more to the superincumbent weight. The pottery found at the very bottom of our sounding suggests that the earth we had been piercing through had at one time been very soft and wet.

In the same year a number of soundings were made in the floor of the temples by Professor Sayce and myself. The positions of the various pits with sections are marked on the plan, Pl. VI, and a detailed account of each is given in the *Annales du Service des Antiquités*, vi, 265-270³. Here it need only be said that A and B, on the axis of the larger temple, passed first through the pavement, which in B was intact, 1·60 thick, and reached the undisturbed gebel about 5·0. C, outside the south wall of the Hypostyle Hall disclosed the face of the foundation courses of the Hall covered by rubbish from the destruction of eighty years ago; it consisted of four courses of well-wrought blocks, some of which were re-used stones of the temple of Dyn. XVIII. The "Hyksos" sphinx in the Cairo Museum was dug up close to this spot. On and about the central axis of the smaller temple, that of Amenophis II, we sank the three pits D (L-shaped), E and F. Here there was a stone pavement of '60 followed by brick-work. The undisturbed gebel was met with at 5·0 to 5·25. We thus dug pits on two lines at right angles with one another, A, B from south to north and C, B, F from east to west, all within the area of the two temples and leading us to think that they stood on a slight natural eminence.

¹ See *Journal*, vii, 60.

² *Annales du Service des Antiquités*, vi, 245, 270.

³ In this account the following corrections are required: p. 267 l. 17, for 0 m '05 c. read 3 m '05 c.; p. 268 l. 14, for 5 m '20 c. read 4 m '70 c.; p. 269 l. 8, for pit C read pit D.

3. THE TEMPLE OF AMENOPHIS II.

In studying the plans it will be observed that there are two separate buildings lying side by side, their axes parallel, their entrances facing the same way.

The building lying to the west is the oldest of the existing ruins, its northern extremity dating from Amenophis II. It is most convenient, and perhaps best understood by the reader, if for the purposes of description we approach the building by its chief entrance and describe the structure as it develops itself before him. The inevitable Ramesses II put his mark on the already existing temple as upon most others in Egypt, and that in his customary slap-dash fashion. Under his influence the temple of Amenophis II was somewhat changed. What its plan was I cannot in all respects affirm, but very much of the original was left. It will be sufficient to describe the ruins as they now are. The walls rise but little more than a metre above the level of the ancient pavement, a state of things partly due to the recent taking away of stones (see p. 20), partly to the very miserable quality of the sandstone of which they were built, a material got in the immediate neighbourhood; one should add that the strong impregnation of the ground with salt has completed the destruction, turning, as it does, stone into powder and even disintegrating granite.

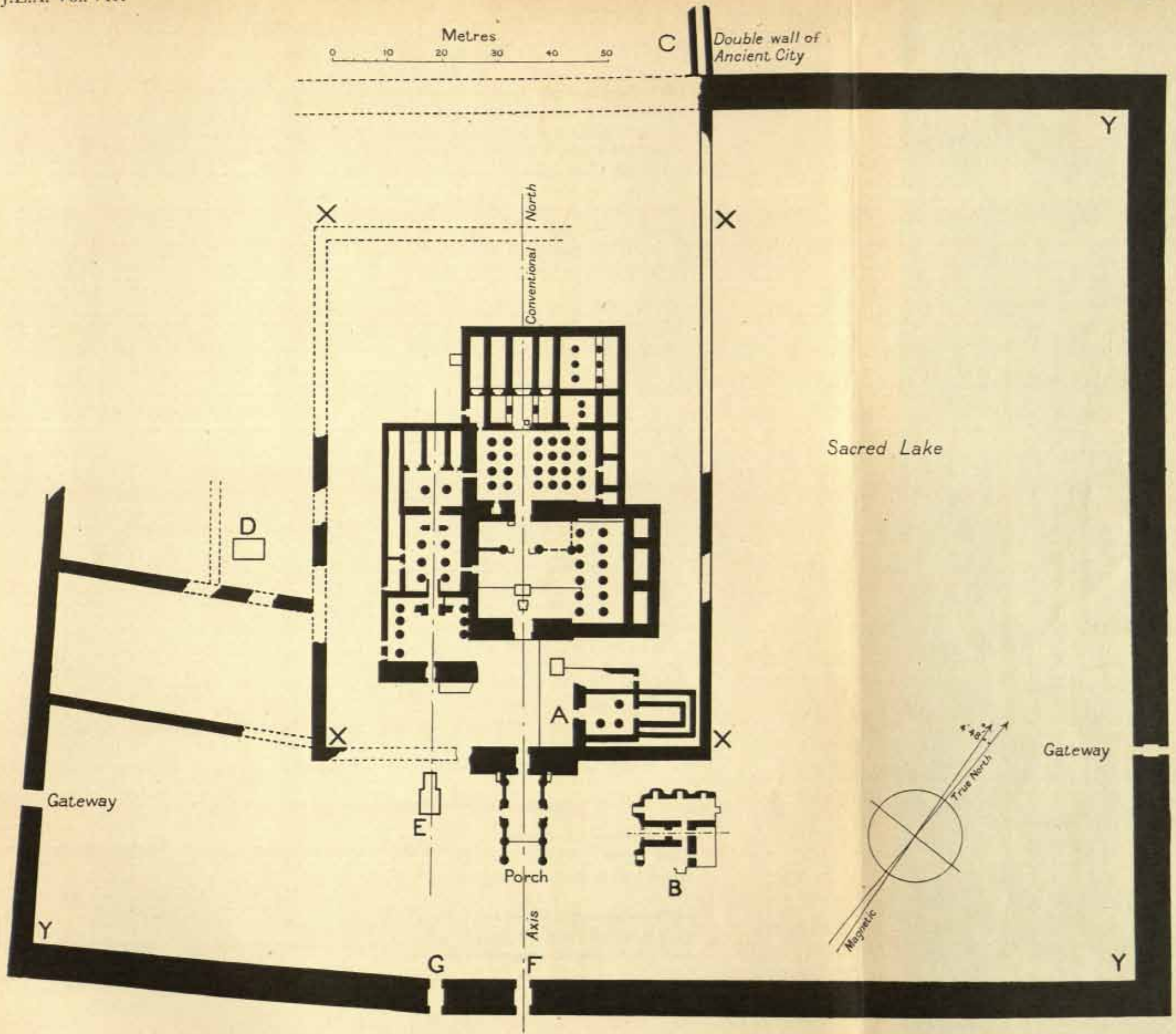
A study of the plan shows us that the temple front consisted of a small pylon with the usual towers flanking the central doorway. Passing through the doorway we enter the ruins of an open court with a covered colonnade on either hand; the remains of four columns are seen on our left and of three on our right.

The columns on the right are, not improbably, in their original position, but sadly knocked about by Ramesses II. These columns are polygons of twenty sides, good examples of work of the Eighteenth Dynasty. They stand on the customary flat base. A vertical column of hieroglyphs was inscribed on the shafts, but these and the surface of the drums have been deeply pecked all over to give a key to a thick coat of plaster laid on by Ramesses II when he remodelled this part of the structure and set up, on the opposite side of the court, certain other columns corresponding in position, but of the bulbous outline in fashion in his day. As it was a universal rule to cover all stone work with thin gesso as a basis for the painted decoration, it would not, when the building was newly arranged, have been possible to tell that these columns, vamped out in plaster, were not as solid as their more modern neighbours across the courtyard.

The wall which enclosed the court on the west and stood behind the columns of Ramesses II, is pierced by two doorways very near together. The position which the doors occupied in relation to the wall face can still be traced, and judging by this we can see that whilst the southern door opened outward (which leads us to suppose there was some chamber here) the northern opens inward and was, therefore, according to the way doors were hung in Egypt, a doorway opening to the exterior of the building. There is not now any trace of the walls that may have enclosed the room into which the southern door opened.

The eastern wall enclosing the court was entirely removed when the larger temple was built.

As we enter the court now being described, we see directly in front of us the remains of a portal giving access to the Hypostyle Hall, and may observe in passing that the wall enclosing the west side of the court is not a part of the south wall of the Hypostyle Hall



PLAN OF THE TEMPLE COMPLEX

but merely butts up against it. This portal had before it a porch, the remains of which show two piers, rectangular in plan and recessed, as though prepared for the hanging of doors. The west face of the right pier still has on it sculpture in low relief, the legs of a standing figure in very good style, which is not, however, like that of the early Eighteenth Dynasty but is of the same type as we find on the columns of the Hypostyle Hall of the large temple, in fact of the Twenty-sixth Dynasty. Projecting from these piers, east and west, are blocks of stone which may possibly form part of a screen wall. The wall in which is the doorway of the Hypostyle Hall has a band of inscription in sunk relief of greatly inferior work whereon the name of the inevitable Ramesses II appears. It cannot be doubted that these piers are an addition and were put in at the same time that the great temple was rebuilt.

The Hypostyle is an apartment nearly twice as long as it is wide. Its roof was supported by three columns on either hand and a square pier. The entrance to the Hall is marked by some rather unusual arrangements about the doorway, two thin wing walls having been built at right angles with the south wall and giving the effect, to those who entered, of passing through a wall of great thickness. This arrangement does not seem to be part of the original design.

The square piers before referred to are on a line with the columns, and probably formed a sort of porch to the doorway which pierces the middle of the north wall of the Hypostyle. Cartouches of Ramesses II are found on these piers.

The wall on our right is pierced by a doorway broken through, giving a passage to the court of the large temple. The wall on our left is pierced by two doorways, each of them opening into a piece of building added on the west side of the original temple (the walls of this are built up against the inscription on the sanctuary walls) by Ramesses II and containing a stair which, no doubt, led to the flat roofs. Passing through the doorway in the north end of the Hypostyle Hall, we enter the ante-chamber to the three sanctuaries. The stone ceiling of this room was carried by two columns. Its northern wall is pierced by three doorways giving access to the sanctuaries. Its east wall, on our right, is pierced by a doorway, not original, which gives access to the Hypostyle Hall of the large temple.

The sanctuaries lie side by side. Across the north ends of these rooms runs a stone shelf. On the front of this is the cartouche of Ramesses II. The east room had a shelf on the west side with cartouche of Ramesses II. Under the north-east and north-west angles of the north wall of this temple Mr Quibell discovered foundation deposits of Amenophis II¹. On its outer face and on the outer face of the west wall enclosing the sanctuaries are an inscription and cartouches of Ramesses II.

4. THE TEMPLE OF AMENOPHIS II; FURTHER DETAILS.

It has been already stated that there was a gateway G, through the enclosing wall of the temples (Y), closely adjoining on the west to the gateway F (see Pl. V) which stands on the axis of the Twenty-sixth Dynasty temple; but searching round about this second gate we did not find any objects of interest.

Making our way northward from this gateway we see before us the ruined pylon of the temple of Amenophis II; but first we encounter the remains of a small building E on Pl. II which almost blocks the door. The structure was rectangular in plan; the stones

¹ See QUIBELL, *El Kab*, p. 16 and Pls. I and XXI.

forming the base of the walls, one stone thick, are little better than powder. Nothing to indicate the use of this building revealed itself.

We come to the Pylon. The lower part of the pylon was cased with stone, and, with its back touching this structure there was, on our left, a very much ruined little block surmounted by a black granite figure of a scribe thirteen inches high in the usual squatting position having a scroll across the knees. Round the pedestal is a prayer to Nekhebet for funeral offerings and to the great company of the gods. The most legible bits are the three following lines which give the name and titles of the deceased. He was "priest of Mont the Lord of Hermonthis, and clerk of the works in the temple of Nekhebet." His name was "Meyu son of the scribe Ani" and he was "born of the musician-priestess of Sobk Nub-nofir." I sent the statue to the British Museum (see *Guide to the Egyptian Galleries—Sculpture*—1909, no. 721) and am indebted to Sir E. Wallis Budge for translating the inscription.

Passing through the doorway of the pylon, we find ourselves in the forecourt of the temple put into shape by Ramesses II, as before related. Immediately in front of us we see a sort of porch which was erected over the doorway giving entrance to the Hypostyle Hall. This porch remains to a height of but little over a metre. The sculpture upon it is of excellent workmanship in low relief, and evidently belongs to the period of the renaissance which took place in the Twenty-sixth Dynasty. The wall against which this porch was built has upon it a horizontal band of inscription in which the cartouche of Ramesses II can be made out, but the poor stone is eaten to powder by saline incrustations.

Passing through the porch and doorway, we enter the Hypostyle Hall which, like most other parts of this temple, is a melancholy scene of ruin. The original structure which was almost certainly of the time of Amenophis II, must have been ruthlessly pulled about by Ramesses II and in a cheap and nasty style; now that the walls but little exceed a metre in height, it is indeed hard to define what the original structure was like; but, as in the forecourt, the changes made were considerable. The poor quality of the stone, eaten to powder by salt, and the ravages of the stone-getters in quest of material for the sugar mills have added to the troubles.

The thin slabs of stone which we can trace right and left as we enter this hall, seem to have been parts of a cheap way of impressing the spectator with the idea that he was passing through a thick and substantial pylon. A little examination revealed that the recesses formed by the slabs had been filled in with brick earth, crude bricks etc. When all this was new, plastered, whitened and possibly covered with painted figures, the effect for many years would have been quite imposing, at least as good as that of the columns made out in plaster in the forecourt, to which we have been already introduced. What we may call an economy in magnificence may be observed at a date earlier than that of this doorway. At the temple of Sôleb (Amenophis III) in the province of Dongola, are truly magnificent ruins of a building of the same type and grandeur as the temple of Luxor. The pylons at this temple were not solid towers, but were built in cells and comparatively loose stuff was thrown into them; so long as the outer walls were perfect, and good stout walls they were, the fraud was not to be detected.

The ceiling of the Hypostyle Hall was supported by six columns, three on either hand, followed by two rectangular pillars bearing the cartouche of Ramesses II, which seem to have been arranged to form, perhaps, a porch to the doorway beyond. This doorway gave upon an ante-room to the three sanctuary chambers which closed that end of the temple. On these chambers, within and without, we find the cartouches of Amenophis II.

5. THE GREAT TEMPLE OF DYNASTIES XXVI—XXX. DATE AND
RELATION TO THE TEMPLE OF AMENOPHIS II.

Parallel with the temple of Amenophis II, but lying to the east of it, are the remains of a very much larger building, the greater part of which has been commenced, though not all of it brought to completion, at one time. Upon fragments of the cornice is to be found the cartouche of Nectanebos of the Thirtieth Dynasty. Mr Quibell describes this building as the temple of Nectanebos; I think, however, that I can prove that it was begun a good deal before his time.

We must always keep in mind that an inscription or sculpture on the walls of an Egyptian building do not necessarily fix the date of that building. The masonry in Egypt was not put together in the same manner as it was by Roman masons or by men working under their influence. All European peoples have differed in their method from the Ancient Egyptians.

In Egypt, from the earliest times with which we are acquainted, blocks of stone were carefully cut out of the quarry of the approximate dimensions which would be required to fit certain specified parts of the building for which they were destined. The blocks were always got out of the quarry too large by several centimetres in every dimension. This was done so that they might be handled without danger to the angles; for it does not appear that either the quarry-men or the masons on the building were acquainted with the use of "tackle" to lift and move the blocks.

When they arrived at their destination, the bottom face of the blocks was prepared for the places they were to occupy in the wall, whilst their ends were cut more or less vertical to receive the adjoining blocks. That which would become the exposed face of the block, was left in the rough, and so were the backs.

In this state the blocks were pushed up an incline to their destined place in the wall. Inside the building the wall surfaces surrounding you were quite rough; outside the same.

In this way the whole building, walls and columns, was constructed. There followed the masons whose duty it was, both outside and in, to cut off the superfluous rough surfaces and to chisel every block down to a tolerably smooth face. This being done, the chiselled faces were smoothed by rubbing until a sufficiently even surface was arrived at for the draughtsmen to draw upon the standing wall the inscriptions or scenes which the sculptors were afterwards to carve.

At El-Kâb the cartouches of Nectanebos are on fallen stones from the cornice. The building, including the cornice, must have been finished as a structure, right up to that level before the cartouches were cut. One of these was on a stone fallen from the extreme north east corner.

On the portico which is built against the south wall of the Hypostyle Hall we find the cartouches of Darius (Dyn. XXVII) and Akôris (Dyn. XXIX). This portico was an exceedingly thin piece of masonry. I venture to assert that the south wall of the Hypostyle Hall must needs have existed before the little portico was set up. The Hypostyle Hall is, therefore, older than Darius or Akôris, still more, therefore, does it precede Nectanebos. In view of what is above stated and other evidences of the masonry, I venture to date the large temple as a building of the Twenty-sixth Dynasty.

It has already been stated that there are remains of a considerably earlier building, or

more probably of two buildings, under the existing ruins. To work our way backwards up the ladder of time, we may observe, used up in the foundations of the present building, a considerable number of polygonal drums of columns, clearly of the Eighteenth Dynasty. In the foundations of the east walls and elsewhere are a number of large stones of good quality and very well sculptured with inscriptions of Tuthmosis III.

His temple seems to have been completely uprooted, but, nevertheless, there were left in position some indications of what I venture to think a structure of a still earlier age. If we refer to the plan, Pl. VI, we shall observe that, approaching from the south and passing through a pylon, we enter a courtyard, and here, a little below the ground level, were found two rectangular blocks of red granite in true relation to the axis of the building, the block on the west partly buried by the pylon of the temple of Amenophis II, that on the east standing free and having been hidden under the pavement of the first court; the block on the east has a slightly depressed sinking, circular in plan, on its upper surface.

Passing further northward along the axis we come upon a third block of red granite. This block on its upper surface has a quadrant sinking on it, a mark indicative of a door pivot. The middle part of the surface is sunk a little below the sides, as it might be by the coming and going of feet. It is remarkable that, considering the importance of the position of the block, standing on the main axis of the temple, the indications show a doorway that cannot have been more than one metre wide. Leading away from this block east and west are lines of foundations built of very indifferent masonry. Supposing, as we may be permitted to do, that this doorway was the entrance to an early temple, the granite blocks may very well indicate the place where stood obelisks flanking that doorway. The lines of stones which indicate the position of walls east and west of the door-sill are thoroughly in character with the shabby foundations of most of the more ancient buildings back to the Twelfth Dynasty; indeed we need not go far from the spot to prove the truth of this statement. The walls of the temple of Amenophis II do not spread as they go down and the lowest courses of stone are but just below the ground surface. The walls of the little temple of Tuthmosis III are standing nearly on the surface¹. The same with the walls of the temple of Amenophis III in the desert². Between these buildings and the foundations of the temple we are about to describe, and of the little temple of Nectanebos outside the east gate of the Great Enclosure wall, the contrast is indeed great, as will presently be shown.

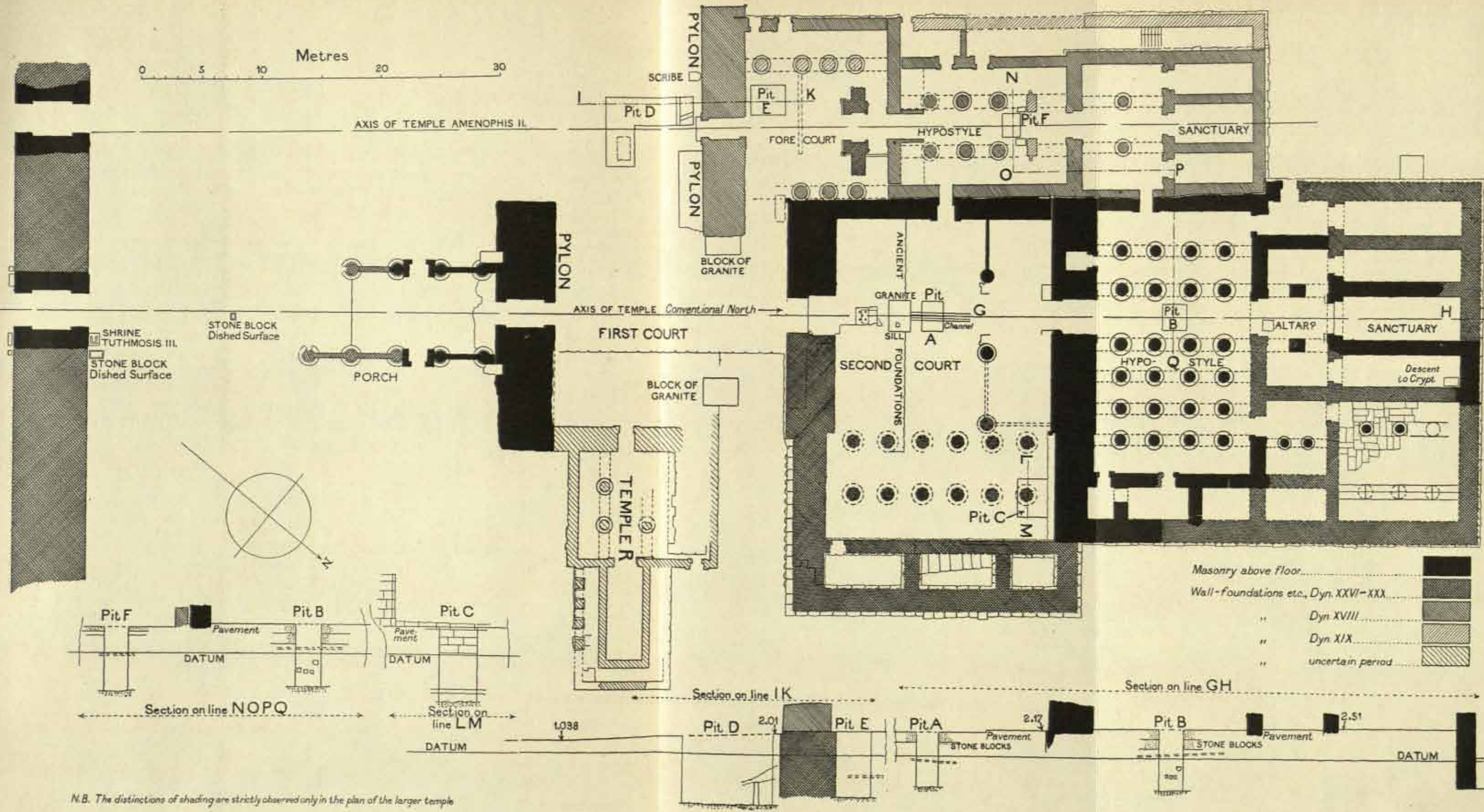
My impression is that we have, first, the remains of a quite early building, then of a temple of considerable pretensions built under Tuthmosis III, and finally, the temple of the Twenty-sixth Dynasty.

It now becomes necessary to call attention to the unusual way in which the temples of Amenophis II and of the Twenty-sixth Dynasty lie in contact and with their axes parallel.

It may be commonly observed with what tenacity, when a holy place is once thoroughly established as an object of veneration, it will hold its position, although very great changes may be made in the building which enshrines it. This conservatism has had a great influence, as I hope to show, on the plans of the two temples under consideration. I suppose the large temple to represent the senior building and that its sanctuary occupies its original place; the temple extended southward. This building was replaced under Tuthmosis III by a far more imposing structure; its width is, I think, given us by the position of the

¹ See QUIBELL, *El Kab*, Pl. XXVI.

² See TYLOR and SOMERS CLARKE, *Wall Drawings and Monuments of El Kab, The Temple of Amenhetep III.*



PLAN OF THE TEMPLES OF AMENOPHIS II AND OF DYN. XXVI-XXX AT EL-KÂB

temple of Amenophis II (it probably extended equally on either side of the existing axis), and Amenophis II, successor to Tuthmosis III, built his temple right against the west wall of the temple which his father had erected.

The Hypostyle Hall of the temple of Amenophis II would not have had the outer or eastern face of its east wall shut in at first, as it is now. We may assume that at the time this wall was sculptured the temple of Tuthmosis III did not extend south of the existing Hypostyle Hall.

But here we find ourselves faced with a difficulty. On the outside of the east wall of the Hypostyle Hall of the temple of Amenophis II, there is evidence (p. 35) that two walls projected at right angles. They were, however, so near together that there cannot have been anything in the nature of a room between them. The southernmost mark corresponds exactly with the line of the Hakôris screen or portico. Perhaps, indeed probably, when first built, this screen was placed against the side wall of the Amenophis temple, but was cut short as we now find it when the thick wall was inserted, which must, when it stood complete, have entirely hidden the east wall of the Amenophis temple.

The temple of Tuthmosis III did not extend sufficiently far south to hide its neighbour. It would be far too long a history for me to enter upon here, but it is easy to show by a study of the masonry, that it was the custom in Egypt to begin the construction of a temple by building the sanctuary, and working away from it towards the future hypostyle hall and great court. The temple of Tuthmosis III may not, when the work came to a standstill, have been carried further south than the hypostyle hall, which may have been of about the same dimension from north to south as the existing Hypostyle Hall. The considerable number of drums of polygonal columns used up in the foundations of the present temple, could thus be easily accounted for.

Amenophis II built his temple with that disregard so often shown by a successor to the works of the man who preceded him, and although on a less ambitious scale, he carried it further to the south and even projected part of it in front of the already existing building. Taking a comparative view of temple plans it may, I think, be said that a temple was always intended to possess at least three chief features: (1) the sanctuary; (2) the hypostyle hall; (3) the court in front of that hall. A great number of variations were made on this theme, but I believe that everywhere, unless the building was very insignificant, these three essential parts were intended to be built. Amenophis II built his temple including these parts, consequently his courtyard obtruded itself on its eastern side somewhat in front of the already existing temple of Tuthmosis III. Then comes the inevitable Ramesses II on the scene. What may have happened during the century and more between Amenophis II and Ramesses II, who can say? Possibly the forecourt begun by Amenophis II had been finished only on the eastern side. At any rate Ramesses II took possession and finished the court, altering the eastern range of columns to suit the more vulgar fashion of his day.

It has been already said that the local sandstone of which these temples are built, is for the most part of a very poor quality. The stone made use of by Tuthmosis III is altogether superior and very probably comes from elsewhere, but Amenophis II did not pick the materials used in his temple. The consequence is that no doubt very early in their history the stone beams and slabs of the ceilings may have begun to break. The stones of the polygonal columns of the original buildings were still made use of by Ramesses II for the eastern colonnade, clumsily coated with plaster to correspond with the new columns of the western colonnade, as we now see it.

It may be doubted whether Ramesses II had not already set his hand upon the building of Tuthmosis III, on the site afterwards occupied by the temple of the Twenty-sixth Dynasty. We will now proceed to the description of the latter, starting with the southern pylon, and leaving the added portico for later consideration.

The southern pylon is built of crude brick with a casing of stone. The stonework is sadly eaten by salt; such remains of inscriptions as there are, all illegible, and it is only by the style and appearance of the workmanship that a basis of opinion can be formed. One thing is certain, the pylon is not of the same period as the last rebuilding of the temple. It has not foundations such as the temple has; it is contrary to all probability that when the bulk of the large temple was so solidly built and on such good foundations as it is, the pylon should be built in the manner of several hundred years before.

We have now reached the entrance to the large temple, that which I call the temple of the Twenty-sixth Dynasty. A glance at the plan shows a great peculiarity in it. It extends east of the axis very much more than it does west, a feature quite unusual in a monumental building, but the reason for this is, in the present case, not difficult to explain.

The sanctuary and main axis of the building being fixed, it is obvious that an enlargement and glorification of the place could be carried out only in two ways. One was to remove the temple of Amenophis II, the other was to adopt the plan we see before us, *viz.* to extend considerably on one side, *i.e.*, towards the east.

The great interest we find in making a study of this place is to observe the ingenious way in which the architect, in designing a plan so one-sided, contrived to maintain in the mind of the spectator a sense of balance in relation to the long axis of the building. And here, no doubt, the presence of the existing southern pylon had a strong influence. He was tied by the southern pylon and the sanctuary. If we reconstruct the temple in the mind's eye, we find ourselves, after passing through the pylon, in a courtyard onto which, on our left, there intrudes a part of the pylon of the adjoining temple of Amenophis II. On our right lies the façade of a small temple, R, its axis at right angles to that of the main temple. The description of this little building must be reserved for the present. Whatever faced this little temple and closed in the court on its western side is entirely destroyed.

In front of us would have risen the façade of the wall enclosing the second courtyard, and in the treatment of this wall the ingenuity of the architect is well displayed. He made of it a seemly pylon; a large doorway, balanced by an equal mass of masonry on either side, is still to be traced by the bases of the roll or torus moulding which we always find at an important angle of a building. This pylon was quite large enough, as we can tell by the dimensions of what is left, to dominate completely the pylon of Amenophis II. Towards the east the line of the pylon was continued by a wall which must have presented an appearance of decidedly secondary importance to that of the pylon itself.

Passing through this pylon we enter the second court which now appears on the plan as a very one-sided piece of work. The architect managed to give another impression. In front of us, and on the axial line, he erected a second pylon about as big as that we have passed through. A great doorway is placed in the middle flanked by an equal mass of masonry on either side. The form of the structure as a pylon is marked out, as in the case of that behind us, by the torus moulding at the angles. Extending eastwards from this pylon is a thick wall. The court in which we are now standing has its wall on the west much nearer to us than that on the east, is, in fact, without an appearance of balance; but the architect was equal to the occasion. He maintained that look of symmetry so important

to a monumental work by filling up the eastern side of the courtyard with a stately colonnade of two ranges of pillars, its front range being at the same distance eastward of the axis of the temple as was the wall of the Amenophis temple on the west.

In front of, *i.e.*, south of, the pylon was erected (a later addition) a very lightly constructed portico of three intercolumniations, with a doorway in the centre, and most remarkably thin screen walls at either side. This piece of building is so slight that it cannot have supported a roof of stone slabs, or if they were so bold as to set up such a roof, its life must have been very short, especially if made of the exceedingly poor stone of the neighbourhood.

The unusual treatment of the design of the temple does not end with the artifice connected with the pylon last described. We must bear in mind that the customary arrangement of a large temple of the later dynasties was to show the front range of columns of the Hypostyle Hall in their full height from their capitals to their bases, but at the same time to close up the intercolumniations to a height of nearly two-thirds, thus admitting light over the screen wall and illuminating the Hypostyle Hall in a very effective and scenic way.

But in the present case we find the older fashion observed, a solid mass of wall closing entirely the southern end of the hall; and when we enter in we see the reason for this arrangement. The main axis is not in the middle of the Hypostyle Hall. On the line of the axis we find what I may be permitted to call the Nave, but this is flanked on the west by two aisles, on the east by four.

Following the axial line through the Hypostyle Hall, we reach a chamber north of it, out of which open three sanctuaries side by side, its roof supported by two square columns. To the left of this and accessible from the Hypostyle Hall lies a sort of lobby, in which is a doorway opening out behind the temple of Amenophis II, and from which also opens a long and narrow apartment parallel with the sanctuaries. To the right is an apartment the roof of which was carried by two columns of very slender girth, and this opens again upon an apartment in which are two ranges of columns, so far apart and slight that I find it reasonable to suppose the central span was open to the sky.

I hope that too many words have not been spent in setting forth my version of how it comes to pass that these two temples stand as they do, and that one of them is of so unusually irregular a plan; but to the architect this building is one more example of a fact which it is not, at first, easy to appreciate, namely that rigid as is in appearance the building style made use of by the Egyptians, their plans were remarkably varied and elastic.

6. THE GREAT TEMPLE: DETAILS.

We have already shown that the site consists of a slight mound, the ground sinking away from it in all directions. When it was decided, at the time of the last rebuilding, to enlarge the plan, the builders were compelled to extend beyond the mound towards the east. Very much of the preceding temple of Tuthmosis III was used up for the foundations of the new work, but by no means sufficient masonry was thus provided. At the north-east angle of the new work there are not less than ten courses of stone, forming a solid platform beneath the pavement. The greater part of the Hypostyle Hall rests on two courses of solid masonry; in other places there are four and five courses, whilst for part of the east wall bounding the second court and where we find a series of small chambers, the somewhat

unusual method (for a late period of building) was adopted, not of constructing a platform, but of putting in very massive foundations to the walls, many courses deep and made exclusively of the materials of the Tuthmosis temple.

Under the south wall of this courtyard at the eastern extension, the wall is built up on the polygonal columns before referred to, the spoils of the Eighteenth Dynasty building. Wherever we examine the foundations of the large temple (exclusive of the southernmost pylon) we find the same abundance of foundations; but nothing was discovered by which these could be accurately dated.

Having given the reader a general view of the temple which might have been confused had various points of secondary importance been included in the account, it becomes necessary to ask him once more to return to the south and place himself at the gateway F, which pierces the enclosure wall YY, and which is on the axis of the large temple. The wall itself is of crude brick in undulating courses and six metres thick. The gateway is lined with wrought stone. Parts of the cornice and of the lintel were found bearing the cartouche of Nectanebos. Outside the gateway were found several interesting objects *in situ*.

Standing against the masonry jambs of the doorway were two stone benches, 0·55 high, and 1·10 in length, finished at the top with the orthodox Egyptian cornice but on a suitably small scale.

Close to each of these as shown on the Plan (Pl. VI) was a stone pillar; one still gives a height of 1·37 above the ground level, but an unknown length is broken from the bottom. In the pillar against the west jamb there are, just below the cornice, a small niche and two somewhat similar at the sides, whilst the north face towards the wall, has a panel carved upon it indicated by mouldings in relief. What purpose these little stone pillars may have fulfilled it is not possible to say. No inscription or lettering of any sort was upon them nor was the top of the little niche blackened as if a lamp had stood in it. The fact that the arrangement of bench and little pillar on one side of the gateway so exactly balances the bench and pillar on the other side justifies one in thinking that there is nothing accidental in this disposition. I searched about to find something in the nature of a recess (sentry box) for the accommodation of a guard, but without success. The little pillars are now in the Fitzwilliam Museum at Cambridge.

Passing through the gateway towards the temple we found immediately inside it on the east, the remains of a small shrine of stone. It was placed only 0·25 from the stone work of the door jamb and looked west, so that its door faced those who passed by. Upon it was the cartouche of Tuthmosis III. The little shrine is now in the Fitzwilliam Museum at Cambridge. Just behind it, *i.e.*, east of this shrine, was a square stone trough. This little piece of temple furniture had survived the various changes of the big building and held its ground amidst the complete overthrow of the parent temple. The positions of the above are seen on Pl. VI.

Close by the shrine we found a large piece of black granite. It lay on the old ground level and may have been, judging by its shape, a part of a sphinx, but there was not any block or plinth on which such a figure should rest. Other pieces lay close by but on none of them could a finished surface be found. The figure, whatever it was, had been very thoroughly broken up and defaced.

Traces of a pavement were found upon the axial line of the temple, and in the midst, between the gate and the portico, a rectangular slab with a shallow sinking on its surface.

On advancing northward (Pl. VI) towards the southern pylon, the remains of a portico are still to be seen: bases of columns, broken capitals and some few pieces of the screen walls. This portico covered the doorway in the centre of the pylon, which pylon I venture to attribute to Ramesses II. The portico is, however, of a much later period.

Just to the east of the entrance of this porch are remains of a large block of black granite. It has been battered out of all recognizable form. I have dug both round and under it, but could not find a trace of sculpture or inscription. It seems possible that the fragments before referred to are part of the same block as they lie not far apart. Whatever the figure may have been, it was evidently on a colossal scale.

Those who are interested in the plans of Egyptian temples will remember that in several cases a porch similar in type to that which we are about to examine, has been added to the front of a pylon or entrance, but so far as I know this feature never shows itself until quite late. In the present case we have a porch of four intercolumniations; screen walls filled three of the intercolumniations whilst in the second from the pylon there were side doors; doubtless also there was a screen wall and a wide door in it closing the front of the porch, but no remains of this were found. The cartouche of Nectanebos was found on a piece of screen wall, and a piece of the cornice of the screen was recovered. The capitals of the columns were of the type of which we see so many at Philae and from fragments we found it seems probable that they were surmounted by Hathor heads. The floor of the porch had been filled in solid with crude brick. There was not sufficient evidence left for us to tell how this porch was roofed; the span is considerable and the columns are too slim to have carried the heavy stone slab that would have been required to stretch from side to side.

The pylon was formed with a thin facing of stone over a core of crude brick. It had in its southern face two of the usual deep grooves to receive the feet of masts, but these grooves had been put to quite another purpose; they had been made the receptacles for colossal standing figures. Portions of these we found, made of an exceedingly bad and yellow stone, of very coarse workmanship and considerably decayed. Late as the style of these figures is, they may be somewhat older than the porch, for an examination of the plan will show that when that work was added to the pylon, these figures stood in the corner in a rather crowded and ignominious way. In the niche on the west side of the porch the feet of the statue are still in place, one foot advanced before the other in the usual Egyptian fashion. Close by the niche there remained a small piece of stone work showing that a horizontal range of hieroglyphs had been cut at this level, forming probably a band at the top of a stylobate at the base of the pylon.

Entering the first court of the temple we find, on the east, remains of a small temple, R, its axis at right angles with that of the large one. It is in a sadly dilapidated condition, the stone reduced almost to powder by the salt. Nothing is left by way of inscription to give a hint as to its date or purpose. The soft yellow stone of which it is made was but little used in any of the works which still remain of the Eighteenth Dynasty; on the other hand it was considerably used in the reconstructions during the later dynasties.

The temple consisted of a fairly thick front wall pierced by the entrance doorway. Passing through this we see the lowest courses of a small Hypostyle Hall, nearly square, the roof supported by four columns. Outside its north wall there seems to have been

a long, narrow chamber with a door at the east end; the jambs of the doorway are prepared not for an external door but for one which led into a second chamber further east, of which no trace remains. In the east wall of the Hypostyle Hall is an opening which does not show that it was prepared to receive doors; it leads to a long, narrow sanctuary the walls of which are destroyed almost to the pavement level. This sanctuary was surrounded externally on the south, east and north faces with a colonnade of square pillars; the positions of certain of these columns may be traced upon the floor blocks. There is no evidence of any doorway from the little temple leading to this colonnade. On its south side and east end the temple stood, indeed, close against the enclosing wall X (see plan, Pl. VI and also A, Pl. V). The angles of the east wall below the colonnade were searched for foundation deposits and a search was made in the middle of the sanctuary floor with a similar object, but in vain.

We return to the axis of the large temple.

Traces of a pavement of thick stone blocks exist between the pylon and the entrance to the second court. The pavement passes between the granite blocks before mentioned p. 28, without touching them. They were possibly covered over when the temple was reconstructed. The pavement is continued northward into the second court. Between the entrance to this court and the red granite door-sill also described on p. 28 lay a stone slab forming part of the floor; on it are five square sinkings (see plan, Pl. VI). There is no clue to its use. We not only opened the ground all round the granite door-sill but tunnelled under it in the hope of finding a foundation deposit, but without result; everything was made solid by us, after we had penetrated beneath the block, which itself was not moved, but since our time others have burrowed and the sill is now somewhat moved from its place. Starting from the north face of the granite block we found four long pieces of stone extending northward, grooved for a channel. The northernmost stone was broken off just where the portico of Hakoris stands and we could trace the channel no further. The channel does not follow quite accurately the axial line of the temple but trends a little towards the east.

The portico of Hakoris need not detain us long. The base of the column on the west of the doorway was in position, and from it westward extended a stone wall, extraordinarily thin but with traces of sculptured hieroglyphs. It is quite unlike the screen walls we usually find between a range of columns, as for example, the screens already mentioned in the porch of the South Pylon (see p. 33). The thin screen was no afterthought; the columns were, clearly, prepared to support it. No doubt there had been a column at the west end of the Hakoris portico; it would then have been of a design not unusual, three intercolumniations, a doorway in the centre one, the architrave and cornice of the front supported by four columns; but the western column was gone and in its place stands a substantial wall which butts up against, but forms no essential part of the pylon front of the Hypostyle Hall, and hides the sculptured face of the eastern wall of the temple of Amenophis II.

It has already been stated that the eastern front of the wall of the Amenophis temple, which faced into the second court, still shows traces of sculpture. Only feet and ankles are left, the wall above having perished, but even these few relics are sufficient to reveal to us that the type of workmanship is superior to that on the other side of the same wall.

On the eastern face of this wall and at two places marked on the plan, are vertical

breaks in the surface as though this surface had been chiselled down, either because cross walls had been removed or as a preparation to build two such walls. The first is the more probable suggestion, as, when a more modern wall was to be built up against an older one, it was not the custom of the Egyptian mason to make the least preparation; he simply built one wall against the other, without tie or bond or the slightest of grooves to set it in. We have an example of this carelessness in the wall which was built covering the wall of Amenophis. At its north end it butts up in the most crude way against the pylon of the Hypostyle Hall.

The colonnade which formed the eastern side of the second court has been terribly destroyed. The stonework has been overturned, broken and pillaged, but there is enough evidence, putting together one thing and another, to show that there were two ranges of columns, six in a row, forming a stately portico; and behind this were three small rooms. The foundations of these rooms are, as before stated, composed of fine and still well-preserved stones from the temple of Tuthmosis III. To carry the pavement of these small rooms, the pits left between the foundation walls had been filled in with stone chips and dry earth. The hieroglyphs upon the faces of the foundation blocks, many of which were turned inwards towards these pits, are very perfectly preserved, and the colour on them was, when we first discovered them, quite brilliant.

On clearing out one of these pits we found an Osiride statue of sandstone lying on its back, very perfect from the knees upwards; it had probably been thrown in to assist in the filling up. We hoped on the day following its discovery to raise it from the place in which it had rested so long; however, on coming to the pit, we had the vexation of finding that it had already fallen into five or six fragments, the sandstone being very fragile on the lines of stratification. It was of the type of the stately figures at the Ramesseum, but much smaller.

In this second court was found the "Hyksos" Sphinx, now at Cairo. From the descriptions given me of its discovery it seems possible that it also had been used for filling in beneath the pavement.

The Hypostyle Hall next calls for attention. The peculiarities of its plan have been already described (p. 30). All the columns are slightly bulbous in outline and rest on the usual flat bases. A good deal of colour can still be traced upon the sculpture with which they were ornamented.

Fallen from above, the remains of several capitals of the larger columns were found; they were all of the papyrus type and all of them decorated in the same manner, agreeing precisely with those in the little temple of Dyn. XXIX just west of the great pylon at Karnak. Fragments of capitals of this form were found only in connection with the central ranges of columns. None such were seen in the *débris* from the side aisles, nor could I identify any fragments found in these as belonging to capitals. How the smaller columns were finished at the top, I cannot venture to say. Their drums had not been carved and if the capitals had been of the bud type, their broken fragments, unsculptured, would be difficult to distinguish from the fragments of the shafts. The Hypostyle Hall has been severely plundered on two occasions, first at the time when so much stone was taken from the group of temples for the benefit of sugar mills; secondly, when the temple, columns, and stones from the breakwater were plundered.

A valuable note on this matter is obtained from a book but very little known; *An appeal to the Antiquaries of Europe on the destruction of the Monuments of Egypt*, by

Geo. R. Gliddon, late U.S. Consul at Cairo, London, Jas. Madden and Co. 1841. He speaks of El-Kâb:

"There these three temples [he refers to the two temples here described and the small peripteral temple of Tuthmosis III lying to the north] were overturned by the Pasha's orders [Mehemed Ali] to build some useless factories and a quay at Esna; but as his agents had a superabundance of material, after needlessly destroying these interesting remains, they have dragged the stones towards the river and left them there in heaps. The factories at Esna are now shut up, the quay a miserable instance of Turco-Egyptian destructiveness."

The destruction had evidently taken place a good time before 1841, the date of the book, as there had by then been time to build and abandon the useless factories.

In the chambers north of the Hypostyle Hall the roof was supported by two pillars, square on plan. These had been elaborately decorated with coloured sculpture. In this apartment we uncovered a block of black granite standing a little north of the doorway leading to the Hypostyle Hall but not quite on the axis of the temple. It did not appear to us that the block was in its original position. It was nearly square on the top 90×87 . The bottom was level but not finished as smooth as the surfaces of the sides and top, which had been polished. One corner of the bottom had been broken off. Its total height is 63 including the little cornice which surmounts the sides. The edge of this cornice is everywhere broken, a state of things which would necessarily come about if the block had stood where it now is when the roof slabs and stone beams broke down, even although we may suppose that at that time there was a very considerable accumulation of earth, bricks and stone fragments round about and over it.

Close by we uncovered a block of stone cut into three steps. Two small recesses are hollowed out from the lower part of the block. The steps are rather roughly cut and show no signs of use. They were near the black granite altar but it would be impossible to say that they had any relation to it.

Over the sanctuaries some of the fallen roof blocks still lie. In the floor of the eastern sanctuary we found a hole in the pavement, a paving stone gone. This gave access to a small chamber the walls of which are made of stones used before in some other place and covered with inscriptions in hieroglyphs of a late type and of no interest. Unfortunately there is no cartouche.

The chamber at the extreme north-east corner was made in the foundations beneath the raised pavement of the temple where a great deal of ground had to be made up to reach the level of the adjoining parts. This work had not been done in the old-fashioned way by piling up earth, but it was executed as had become the method in the Twenty-sixth Dynasty by carefully laying stone blocks, neatly squared, one upon the other as in a wall. Our soundings about the Hypostyle Hall revealed the fact that under all that part of the temple two or three layers of squared blocks were laid. At the eastern side of this hall as many as three, four and more layers of blocks are seen, and at the north-east angle there are ten. The plan shows the actual pavement stones with the bases of two columns resting upon them; and for the rest it indicates the upper surface of the next layer of stones underneath the pavement and on these we find, deeply scored on their surfaces by the masons, the guiding lines which would mark exactly where the columns were to stand on the paving stones above. It was from the angle of the cornice at this north-east corner that one of the cartouches of Nectanebos was found graven on the corner stone.

7. THE GREAT TEMPLE: FOUNDATION STONES AND OUTLIERS.

The description of the temple will not be complete until we have made a short pilgrimage round the exterior of the group of buildings, the stones used for the foundations, now exposed, being of no little interest.

It is on the south and east side of the large temple that the inscribed stones are chiefly found, and for the reason that the slight mound on which the original temples were built sinks away rather rapidly, both to the east and north. The enlargement of the area covered by the new buildings made it necessary, in order to preserve a level floor within, that the walls in their new position should be raised on considerable basements.

Passing outward from the second court of the great temple through the ruins of the pylon, and turning sharp to our left, i.e. eastward, we see exposed a range of drum stones from polygonal columns; these are all set upright side by side, resting on a course of large blocks and surmounted by the same. Each drum has had upon one of its faces a column of hieroglyphs; these are a good deal damaged and the column drums being placed without any relation to their original arrangement, some with the sculptured face inward, some outward, some altogether out of sight within the substance of the wall, nothing can be made out of the inscriptions.

On the east basement the inscriptions are, in nearly all cases, upon blocks of considerable size. The cartouches of Amenophis I, Tuthmosis II and III, and Sethos I, are here to be seen, and possibly others, but this account of the temple, already too long, does not profess to enter upon a detailed catalogue of all the inscriptions. There is enough, if only in these foundations, to show that a good deal of work was carried on during the Eighteenth and the beginning of the Nineteenth Dynasties.

The inscribed stones, as we have stated, are found chiefly on the east basement wall and in the pits in the foundations of this wall, on the return of this wall facing towards the north, and for a short distance upon the east basement of the Hypostyle Hall. Most of the masonry of the foundation north of this was evidently prepared for building the enlarged temple and brought from the quarry for that purpose. After the temples were finished, their floor levels being apparently determined by the highest points of the mound on which they were built, the basement courses seem to have been, on all sides, buried in a solid mass of crude brickwork—happy hunting ground for the *sebbākhn* for many generations past, so that little is now left. It will have been observed that (see plan, Pl. V) there are in the enclosure wall Y two gateways side by side. The eastern gateway F, standing as it does upon the axis of the large temple, has been already described. Its companion G, we may suppose, was intended to stand upon the axis of the temple of Amenophis II but, after taking the greatest pains (which was necessary in view of the sadly dilapidated condition of the temple walls), we were forced to the conclusion that a true line just touched the eastern jamb of the gateway and did not pass through its centre. This gateway corresponds in all respects with its neighbour on the east, and was evidently built at the same time.

On the axis of the great temple produced southward, we now see a group of palm and other trees, but on following the line across the intervening cultivated ground, we find that we have in fact arrived at a great mass of masonry, rectangular in plan, against the south-west angle of which the river flows.

There is a tradition that a paved way extended from the temple direct to this quay, for such it was. Very naturally, any stones found upon this line interfering as they would do with the cultivation, have gradually been removed. Further description of the quay and

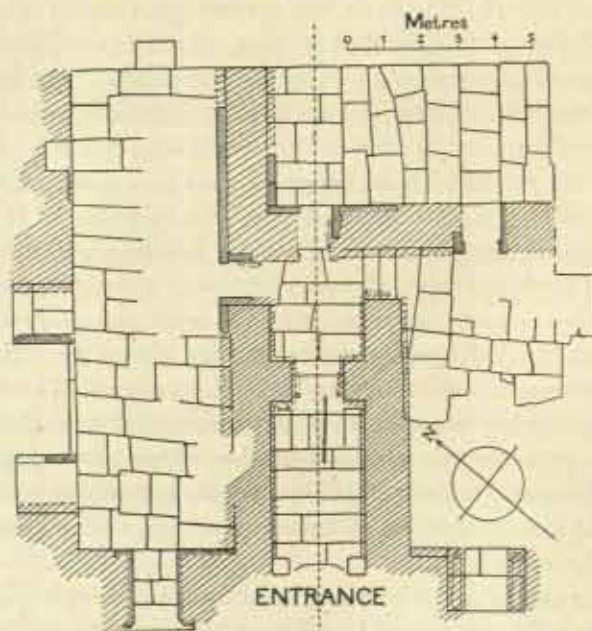
of the groyne attached to it, will be found in the *Journal of Egyptian Archaeology*, VII, 69 and Pl. XIV.

We have yet to mention the sacred lake which lies between the enclosing walls X and Y on the east side of the temples (Pl. V).

At present we see a melancholy, still and dirty pool, nearly circular, an evil smelling mud crusted with salt bordering the water, ragged ruins of mouldering brick on the north and east, and the half-unveiled stonework of the temple foundations on the west.

Search was made for a gateway or approach from the temple to the lake. It was not unreasonable to think that, piercing the wall X, that wall which we take to be on the line of the enclosure of the ancient city, we might find some more or less monumental gate and stair, but our search was in vain. As we could not doubt that the lake had been enclosed by stone walls and was most unlikely to be circular in form (the Egyptians in their architectural works seemed to have a dread of anything circular) it was decided to search on the north side of the pool. Here a little digging revealed a stone wall, much dilapidated. A similar test on the south side revealed the same state of things. Search was then made on the west and we arrived upon a considerable mass of masonry; without doubt we had come upon a corner, the south-west, of the walls enclosing the lake. The stair leading down and into it (for the water must have risen and fallen with the changing Nile) was also cleared; but the large quantities of stone blocks, each block of considerable size, were difficult to account for. They are not the remains of a vertical wall such as enclosed the sacred lake at Karnak. I venture to think that, disposed as they are at right angles to the water, they were a stepped revetment laid on the sloping side of the excavation made for the lake. The way many stones have slipped, owing as we may suppose to the yielding of the soft mud beneath them, is in favour of this theory.

To clear the lake all round was a bigger work than I was inclined to undertake and, in view of the unwholesome state of the mud, a more unhealthy one than I fancied.



Foundations at B (Pl. V).

8. BUILDING ON MOUND EAST OF PORTICO.

This little building B (Pl. V) has a very complicated plan which it is difficult to unravel. It is, judging by the type of a piece of sculpture found in it, quite late in date; the figures have the pulpy surface and clumsy outline characteristic of Ptolemaic work.

The method of building is, however, unlike Ptolemaic, for it is decidedly flimsy. The paving stones are not laid over the whole surface on which the intended building was to stand, but are thin slabs laid on the floor of each room and extending a few centimetres under the walls. It is thanks to this system of building that we can make out some of the plan, for on these paving stones are scored lines which indicate the faces of the walls intended to be set up. The walls were of large crude bricks faced with a skirting or low dado of rather thin stone slabs set up on edge; the slabs are too thin to permit of others being placed upon them so as to line the interior of the room up to the ceiling. The slabs stand on the stone pavement in most cases. As the little mound falls away very regularly on all sides, it seems probable that the area now covered with pavement gives us a fair indication of what the dimensions of the little building were. It appears to have been rectangular in plan. On the north was a room running the full length of the building. A deep recess lined with slabs is seen at the west end of this room and two deep recesses on the north side (none of them have marks in the pavement suggestive of door pivots or door sills, nor are they in any way foot-worn); at the east end is a small and shallow recess. A considerable lump of fallen brickwork rests on the floor of the room, sundry pieces still retaining fragments of mud plastering and of a fine coat of lime white on which could be traced remains of a pattern in black. In the same mass of brickwork were broken vaulting bricks of the usual type, scored across with the fingers to give a key to the mortar. Out of the north room and near the middle of its south wall is a doorway, on the sill of which is the door pivot.

The doorway leads into a small square chamber, from which one room opened to the east, another to the south, and another to the west. In each of the doorways the sockets for door pivots are seen. At the west end of the middle room or passage are the stumps of two upstanding stones which were perhaps connected with the entrance doorway. If we enter at this supposed door, we find the pavement to be laid with a slight rise as we approach the door to the small central room.

The central axis of this little building is at right angles with the axis of the large temples.

9. LITTLE BUILDING LYING WEST OF THE TEMPLE OF AMENOPHIS II.

This small structure, D (Pl. V), rectangular on plan, is raised on a platform of sun-baked brick. The walls of the little building were but one stone in thickness. Beneath them on the brick a course of stones had been laid, their length across the thickness of the intended wall, and the brick platform seems to have been raised high enough to hide these stones when the building was finished. The door, if the gash in the east wall marks its place (which seems probable), faced eastward, so that the axis of the building was more or less at right angles with the axis of the large temples.

In the British Museum Add. MSS. 34086, Lane MSS. iv, No. 73, is a "drawing of Eilethya." This shows in the foreground a small structure which presents to us its narrow end (the view is looking eastward) and we see high blocks of stone at each angle and one

in the middle, with lower walls uniting them. I believe this represents the little building above referred to. The drawing suggests that there may once have been a very minute edifice of the family of the kiosk at Philae. In the same view we see the sanctuary wall of the temple of Amenophis with its doorway and some roof blocks in place, and also six columns of the Hypostyle Hall of the Great Temple with their architraves resting upon them.

10. NOTE ON THE SMALL TEMPLES WITH SURROUNDING COLONNADE.

The small temple R in Pl. VI, within the first court and placed at right angles with the axis of the large temple, had on the north, east and south side of its sanctuary a range of columns, square on plan, which undoubtedly carried an architrave, and thus formed an external colonnade on the three sides above named. There is no evidence of an approach to this colonnade from within.

Immediately outside the desert- or eastern-gate through the Great Wall, we find a small temple, its axis north and south, also with an external colonnade. This temple bears the cartouche of Nectanebos. It has been overthrown down to the level of the pavement and on this pavement its plan is scored in firm lines which enable us to tell that at the southern end there were three intercolumniations whilst on its east and west sides were four. The entrance front was towards the north and from this place, unfortunately, the pavement stones have been taken, so that the traces of the plan are lost. As had become the laudable custom, this little building, not more than 8·25 m. wide and 10·25 long, had been provided with splendid foundations of five or six courses of well-squared blocks; in result, the total amount of stone from the pavement downward must have a good deal exceeded the amount of stone from the pavement upward.

Some little way northward of this temple we find the remains of the little temple of Tuthmosis III before referred to. This building had the *cella* completely surrounded by a colonnade of square pillars, as is shown clearly by the plan sections and elevation in the *Description de l'Égypte*¹, where it is remarked that it was a counterpart of the two little temples on the island of Elephantine; all of these structures have long since been destroyed.

It is interesting to find three little temples in the same locality, all similar in type, but ranging through the long period between Tuthmosis III and Nectanebos.

¹ Antiquités, Tome I, Pl. LXXI, Figs. 1—4, *cf.* Texte, p. 350; see QUIBELL, *El Kab*, Pl. XXVI and p. 16 for its present condition.

THE RELATION OF MARDUK, ASHUR, AND OSIRIS

By SIDNEY SMITH, M.A.

THE question of the relation of the civilisations of Egypt and Babylonia, often discussed has most frequently been considered from the material aspect; and there is slowly accumulating archaeological evidence to show that the two ancient states had many things in common that trade intercourse alone cannot be held to account for. On this strictly archaeological argument various authorities are likely to base varying interpretations; but it is to be hoped that in the discussion of the point some regard may also be had to another aspect of the question,—the religious. During the war a quantity of most important religious texts has been published by Dr Ebeling¹, and from those texts certain facts have come to light which necessitate an entirely new view of the two great gods of the Euphrates and Tigris valleys, Marduk and Ashur; and it will be seen that certain inferences are possible which have a most important bearing on the question of the origins of civilisation.

The texts that have supplied new information about the mythology dealing with Marduk and Ashur are of two kinds.

(1) Fragments of the Creation Epic, restoring much of the missing* portion of the First Tablet, and almost the whole of the Sixth Tablet, previously represented by a few lines. These have been translated provisionally by Sir E. A. Wallis Budge in *The Babylonian Legends of the Creation* (British Museum, 1921)².

(2) Texts connected with the rites of the New Year Festival, called *Zagmukku*, at Babylon and the city of Ashur. These have been translated by Professor Heinrich Zimmern in his *Zweiter Beitrag zum Babylonischen Neujahrsfest* (B. G. Teubner, Leipzig, 1918), a book which serves to explain much that had already appeared in the first pamphlet, *Zum Babylonischen Neujahrsfest* (B. G. Teubner, Leipzig, 1906). Professor Zimmern has, in the later work, given an ingenious comparison between the myth of Bel-Marduk and the New Testament account of the Christ which is likely to distract attention from certain points in which his interpretation of the texts is undoubtedly correct. For that reason it will be well to state the results of his work on the texts as clearly as possible.

Certain texts from Nineveh and from the city of Ashur describe cult ceremonial performed at the New Year Festival³. These cult acts are explained as representing mythical events connected with the story of Marduk. The king himself played the part of Marduk in this mimetic ritual⁴, the priest that of Nabu, while the worshippers themselves seem to have taken part in the ceremony⁵. From these texts the story of Marduk can be partially filled out: some assistance can also be obtained from the ritual of this festival, which lasted during the first twelve days of Nisan, from the hemerologies for the second to fifth days still extant⁶. The Creation Epic was recited during the fourth day (also

¹ *Texte aus Assur Religiösen Inhalts*, Hefte 1-v1 (Wissenschaftliche Veröffentlichungen des Deutschen Orient-Gesellschafts).

² See also EBELING, *Das babylonische Welterschöpfungsgedicht*, B. Meissner, Breslau, 1921.

³ *Erster Beitrag*, 127-136.

⁴ *Erster Beitrag*, 132, Anm. 5.

⁵ Cf. *Zweiter Beitrag*, 14, l. 9.

⁶ THUREAU-DANGIN, *Rituel Accadien*, Paris, 1921, 127-155.

with mimetic representations) from beginning to end¹, as summarizing the early part of Marduk's career as follows:

Marduk was begotten by Ea within the chambers into which Apsu, the abyss of waters, was divided. His form was peculiar, for he had four ears and four eyes, which probably means he was two-headed². He joined with all the gods in the great rebellion against Tiamat. Other gods having refused to undertake the task of facing Tiamat and her champion Kingu³, Marduk, on the promise that his supreme position should be acknowledged, went forth to battle, paralysed Kingu by his eye⁴, and killed Tiamat in battle, ripping her up to make heaven and earth. Marduk then fixed the stations of the moon and the stars, and announced his intention to Ea of making the ways of the gods two-fold, i.e. one celestial, one terrestrial. Ea suggested that one god be sacrificed that all might be established. Marduk held a council of the gods and asked who was the cause of strife. They replied "Kingu," and Kingu was punished, Ea fashioning⁵ mankind from the blood: man was made for the service of the gods. The gods then asked Marduk what gift they could make him, and he decided on the building of Babylon. The Anunnaki themselves built the temple of Babylon named Esagila, and when this was completed a council of the gods was held which bestowed on Marduk the Fifty Names which announced his supremacy.

So closes the Creation Epic; and before the ritual texts enable us to learn more of the story there is a long gap, and somewhere in this gap must come the group of events once recounted in the so-called "Legend of Zu⁶." From this we learn that the god Zu stole from Marduk the *dup šimati*, generally translated the "tablet of destinies," but better called a "tablet of ordinances." This was an essential to the ruler of the Universe: it had originally belonged to Tiamat, who gave it to Kingu, from whom it was captured by Marduk. It may be that the loss of that tablet led to the fall of Marduk: for the ritual text⁷ opens with Bel imprisoned in the "Mountain," that is the grave, or Sheol, the underworld⁸. A message was sent out, asking for some one to bring Marduk out. Nabu came from Borsippa to save his father. A goddess (almost certainly Beltis, the spouse of Marduk) appealed to Sin and Shamash to bring Bel to life, then went to the gate of the grave seeking him where he was guarded by twin watchmen in a prison without sun or light: the goddess descended into the grave to save him. While Marduk was thus imprisoned, apparently with the actual evildoer, confusion fell upon Babylon. Further details of the ritual are not easy to work into a story, but it is clear that Nabu and Beltis were both active in their endeavours to aid Marduk. Finally Anshar sent Enurta⁹ out to capture Zu, and he captured him; and then the gods bored through the door of the prison and brought Marduk out. It should be noted that the colophon of the tablet shows that it was intended only for the eyes of those initiated into these religious mysteries.

Such is the brief outline of the myth of Marduk as it is now known. Several authorities,

¹ *Zweiter Beitrag*, 39, Anm. 1.

² The two headed divinity, then, on cylinder seals is Marduk. I believe these scenes to be illustrations of the incantation "Go, my son Marduk."

³ The reading of this name is far from certain.

⁴ Fourth Tablet, l. 67.

⁵ I.e. Like a potter, as the word used implies. Ea's symbol was a ram-headed crook. Note that in the paintings of Egyptian temples it is Khnum, a ram-headed god who moulds the figures of the king and his double, also at the command of the sun-god (NAVILLE, *Deir el-Bahari*, II, Pl. XLVIII).

⁶ The text is given in KING, *First Steps in Assyrian*. I deduce the fact that this story belongs here from *Erster Beitrag*, 132, l. 14, and *Zweiter Beitrag*, 18, ll. 58-60.

⁷ *Zweiter Beitrag*, 14.

⁸ *Zweiter Beitrag*, 3, Anm. 2.

⁹ This is the god's name that used to be read "Ninib."

especially Sir E. A. Wallis Budge, have pointed out close similarities between the Creation Epic and the Myth of Apep¹. Even the few facts outlined above will suggest a comparison of the later events in Marduk's career with the myth of Osiris. The descent into the grave is of course the central feature; it is unfortunate that in the Marduk myth the immediate cause of that descent is uncertain. The comparison of Beltis with Isis is obvious; and the victory of Enurta, whose symbol is a bird of prey², over Zu affords at any rate an interesting parallel to that of Horus over Set³. Nabu is very similar in his characteristics to the Egyptian Thoth, who also played a part in the Osiris myth. Comparative mythology is notoriously unsafe ground for speculation, and yet it seems difficult to believe that no connection exists between the Babylonian and Egyptian myths.

That there is a possibility of such a connection is, I believe, strengthened by certain other considerations. These considerations are indeed themselves but guesses, but they afford the best explanation of a series of problems which Assyriologists have long been unable to answer.

Zimmern long ago⁴ pointed out that the god Ashur in Assyria was the hero of the fight with Tiamat, as Marduk was in Babylon: a fact confirmed by the texts from *Ḳalāh Sharḳāt*, in which Ashur becomes the central figure of the Creation Epic⁵. There can be little need to doubt that Ashur and Marduk are essentially one and the same god, differentiated by different epithets, otherwise the literary appropriation of the Creation Epic, undoubtedly composed originally in Babylon about the period of the First Dynasty, to the Assyrian god could never have won approval. Ashur, then, also was a god who descended into the grave, and the facts known about Bel-Marduk are also true of [Bel]-Ashur. It is indeed significant that in the ritual form Ashur the god is always called Bel. Now in this equation of Marduk and Ashur may be found the explanation of the name *Asari*—always used of Marduk as an epithet only, as in the tablet of the Fifty Names. *Asari* has generally been considered a Sumerian word⁶; but I venture to suggest that it is quite possibly a Semitic, or, more properly, Akkadian adjective applied to the great god: an epithet which, with the Assyrians, became the name of the god himself.

Now there is a very important feature of the god Ashur which has not been very generally remarked. The slabs from the palace of Ashur-naṣir-pal at Nimrūd, now in the British Museum, have frequent representations of the god sitting in a winged disk⁷. In scenes which are probably illustrations of the Assyrian New Year Festival, the god in the winged disk is always seen hovering over a tree: and similar scenes are frequent on Assyrian cylinder seals. It is safe to infer that the tree and the god are closely connected. The tree is a most peculiar object, being apparently bound at certain parts of the trunk by metal bands, and then hung with intertwining boughs, the whole being surmounted by an arbour of twigs. Professor Tylor⁸ saw in the whole scene, in which certain figures are

¹ A number of detailed parallels are pointed out in *The Babylonian Legends of Creation*; and cf. *Gods of the Egyptians*, I, 324 ff.

² See KING in *P.S.B.A.*, Feb. 1913, 66 ff.

³ Another incident in Zu's career which is similar to the story of Set is illustrated on some cylinder seals which show a birdman dragged before the judgment seat of Ea in heaven by a double headed god, i.e. Marduk. The other god who is apparently accusing Zu may be Nabu carrying a mace. See WEBER, *Orientalische Siegelbilder*, II, Abb. 396-400.

⁴ *Erster Beitrag*, 144.

⁵ See BUDGE, *Creation Legends*, 5.

⁶ For the complete artificiality of the scribes' interpretations of *Asari* as a Sumerian expression, see UNGNAD in *Zeitschrift für Assyriologie*, XXXI, 153.

⁷ This winged disk must surely be closely connected in significance with the winged disk in Egyptian art: cf. EBERS in *Z. Ass.* x, 101.

⁸ *P.S.B.A.* XII, 383.

depicted, a ceremony derived from the fertilization of the date palm, but M. Henze¹ has given good reasons for doubting this. The habit of putting ornamental metal bands round cedar trees in temple-precincts is attested by inscriptions of New Babylonian rulers². This fact alone inclines me to believe that the tree of Ashur is a cedar tree³. I am the less willing to think the tree is a date palm because that tree does not grow in the latitude of Nimrūd. However this may be, Ashur was closely associated with a tree round which metal bands were placed, possibly a cedar.

Now Sir E. A. Wallis Budge has kindly pointed out to me a curious feature of the symbols of Osiris called *tet* or *ded*. Below the outspreading top which, according to Prof. Newberry, may represent the spreading, sweeping branches of a conifer, are generally four bands. What do these bands represent⁴? It is very tempting to see in them the same metal bands that are round the tree with which Ashur is connected. Perhaps it was this very feature that the Osiris myth attempted to explain by the story of a tree growing round the chest which held the body of Osiris. Should this comparison be accepted, it seems impossible to the present writer not to believe that Ashur and Osiris, whose cult objects are similar, as well as their myths, have a common origin.

For that common origin the name also speaks. Prof. Sayce has pointed out the possibility that Asari is philologically equal to Osiris: it is no less possible that Ashur = Asari = Osiris. Incidentally, one small peculiarity about the name of Ashur may itself perhaps be explained by what has already been said. Why did the name written Ashir or Ashur in early times come to be pronounced Ashshur, as it invariably is from about 1400 B.C.? Is it possibly because Ashur was identified with the tree named אֲשֵׁר, the *sherbin*, a particular form of cedar? The speculation is nothing more than speculation, but it fits the evidence very well.

Now if the Osiris myth in Egypt and the Marduk and Ashur myth in the eastern river valleys have a common origin, where did the myth originate? Certainly not in Babylonia; for the god who descended into the grave had quite a different story originally in Babylonia—he was Tammuz, and connected with the Ishtar cycle. The worshippers of Marduk, the Babylonians of the First Dynasty, are now universally acknowledged to have come from Amurru, or roughly speaking, Syria. The Assyrians must also have come into the Euphrates and Tigris valleys from without, for Sumerian remains have been found on the site of Kalah Sharḫāt. The earliest Assyrian names are found on the tablets from Cappadocia, which belong to the time of the Dynasty of Ur, about 2250–2150 B.C.; this also points to a Western origin. When it is remembered that the city of Byblos played an important part in the Osiris myth, there seems some ground for the supposition that Syria was the true original home of Ashur-Marduk-Osiris.

¹ In POTTIER, *Les Antiquités Assyriennes du Louvre* (1917), 49 ff.

² Cf. LANGDON, *Neubabylonische Königsinschriften*, Nebuchadnezzar Nr. 17, Col. III, ll. 27–29, et freq.

³ The main features of the tree as represented in the sculptures are that the trunk is straight and the branches form a clump head. Of the *Cedrus Libani* it is said, "In the young tree the pole is straight and upright....As the tree increases in size the upper branches become mingled together and the tree is then clump-headed." *Encycl. Britt.* s.v. The cones in the hands of the divine figures may well be cedar cones, the resin from which was used for anointing.

⁴ According to a translation of an Arabic text recently published (see BUDGE, *Queen of Sheba*, pp. xxxix–xliv) the early Arabs were in the habit of placing rings made of precious metal on logs or trunks of trees which in some way had become sacred. In the instance quoted the log of wood had a mysterious origin and performed miracles, and Solomon determined to preserve it. The King and the Queen of Sheba each placed one silver collar on the log, after the miraculous transformation of the Queen's animal foot, and their example was followed by their successors, so that at the coming of Christ there were 30 rings on the log. The custom of hanging various objects on sacred trees was well-known in pre-Islamic Arabia.

"The city of Sherigga belongs to the Sun, the city of Luwana belongs to Shuna-ashshura. The river Shamri (is) his boundary; the great King shall not cross the river Shamri to the border of the land of Atania. Shuna-ashshura shall not cross the river Shamri to the border of the land of the Hittites.

"From the city of Zilabbuna the river Shamri is the boundary; from the river Shamri shall be the boundary of Shuna-ashshura. Shuna-ashshura shall not cross the Shamri to the border of the land of the Hittites, the great King shall not cross the river Shamra to the border of Kizzuwadni."

(2) Kizzuwadna contained ports from which shipments from the Hittites to Egypt were effected, as is shown by a letter from Hattushil to Ramesses II.


"Concerning the iron, about which I sent word, there is no good quality iron in the city of Kizzuwadni, in the house of my seal" (*Keilschrifttexte aus Boghaz Koi* I. No. 14 Obv. ll. 20-21).

The point of this remark is that there is no iron at the port available for immediate shipment; the letter proceeds to state that there is some difficulty in procuring good iron. The most natural port to think of is Tarsus, and this agrees very well with other evidence.

(3) The principal natural feature of the boundary as given above is the river Shamra. That this name is purely Semitic there can be no doubt; it is from the well known Accadian root שָׁמַר and means "the violent." It seems impossible to the present writer to believe that a river flowing into the Black Sea had a Semitic name. It is on the other hand, very tempting to see in the Greek name of the Nahr Sayhân, Saros, a derivative of *Shamra*, through the form *Shaura*.

(4) Two of the towns mentioned as lying on the border in the passage quoted above may be identified with places mentioned in Assyrian historical inscriptions. "The land of the city Atania" may reasonably be identified with the city of Atun mentioned (Sargon II Annals, l. 45) in connection with Tabal. This Atun has been connected with Tyana, but more probably is the Tynna of Ptolemy (see FORRER, *Provinzeinteilung des Assyrischen Reiches*, p. 72). The city of Arûna may well be the famous city of Arinna, mentioned in the Egyptian treaty, and celebrated as a famous shrine in the Boghaz Keui documents. It is mentioned by Tiglathpileser I as being a city of Mušri (Annals, col. v. l. 77; see SAYCE in *Proceedings of the Society of Biblical Archaeology*, vol. XXIII, p. 98), and lay therefore in the Anti-Taurus.

The conclusion from this evidence is fairly clear. Kizzuwadna was a state lying on the Mediterranean sea coast, including the city of Tarsus, the natural port of central Asia Minor; the northern boundary ran east into the Anti-Taurus, then turned back to the sea; the southernmost portion probably lay south of the Gulf of Issos, since the boundary was coterminous with that of the Harri.

There is, however, one difficulty which must be explained before the conclusion can be regarded as certain. The name by which the Egyptians knew the lands round the Gulf of Issos at this same period was Kedi or Kode, . This is used in the accounts of the war between Ramesses II and Mutallu, in which Kizzuwadna is also mentioned. Dr Hall informs me that this may be an Egyptian word meaning "going round," the land where one goes round (i.e. the Gulf of Issos), and may not therefore represent the native name of the country; or that it may be an assimilation of a foreign name to the native word, similar to those frequently found in Arabic writers. In this case it will be spelt like the word

meaning "to go round" by a *Volksetymologie*. That Kode and Kizzuwadna may possibly be names for the same country is, perhaps, shown by an historical incident. The wife of Hattushil, King of the Hittites, was a Princess of Kizzuwadna. Thirteen years after Hattushil had concluded a treaty of peace with Ramesses the Second, the Egyptian monarch married a daughter of the King of the Hittites. Among the princes in the train of the Hittite king when he visited Pharaoh's court was a prince of Kode. The prominence given to this prince may be explained by the fact that he was a blood relation of the princess; that he was, in fact, a prince of Kizzuwadna. In any case, it is far more probable that Kizzuwadna lay round and to the west of the Gulf of Issos than that it should be located on the Black Sea, as it has been in various maps recently published in German archaeological journals. (See *Mitteilungen* of the Deutsche Orient-Gesellschaft, Nos. 58 and 61).

EXCAVATIONS AT TELL EL-AMARNA

By C. LEONARD WOOLLEY, M.A.

THE Egypt Exploration Society's work at Tell el-Amarna was resumed on October 20, 1921, and the season continued until February 10th of this year. I had with me Mr P. L. O. Guy as archaeological assistant, Mr F. G. Newton as architect and draughtsman, and Mr Battiscombe Gunn to deal with the inscribed material. Our work gained considerably in interest from not being confined to the central town area; within the limits of Tell el-Amarna there is plenty of variety, and in the following preliminary report on the season's results I deal separately with four sites sufficiently distinguished from one another by position and by character. These are the Workmen's Village, the Main City, the River Temple and the Precinct of the Southern Pool.

I. THE VILLAGE SITE.

The Site.

Almost in the centre of the arc formed by the high desert behind Akhetaten there runs out from the limestone cliffs a long and narrow promontory broken up by shallow wadies and rising here and there to low peaks, which, broadening at its western point, encloses a small cup-like hollow, open to the south but from the royal city completely hidden behind its flat-topped rim of steep pebble-strewn hill. In the German map (TIMME, *Tell el-Amarna*, 1917), this valley is marked as a cemetery. Actually there are graves in the wady just to the north and one or two on the hill crest, but the ruins which crowd the whole valley are of a different character. In the bottom of the hollow lies a walled village, and on the slopes to the north and east of it are brick funerary shrines.

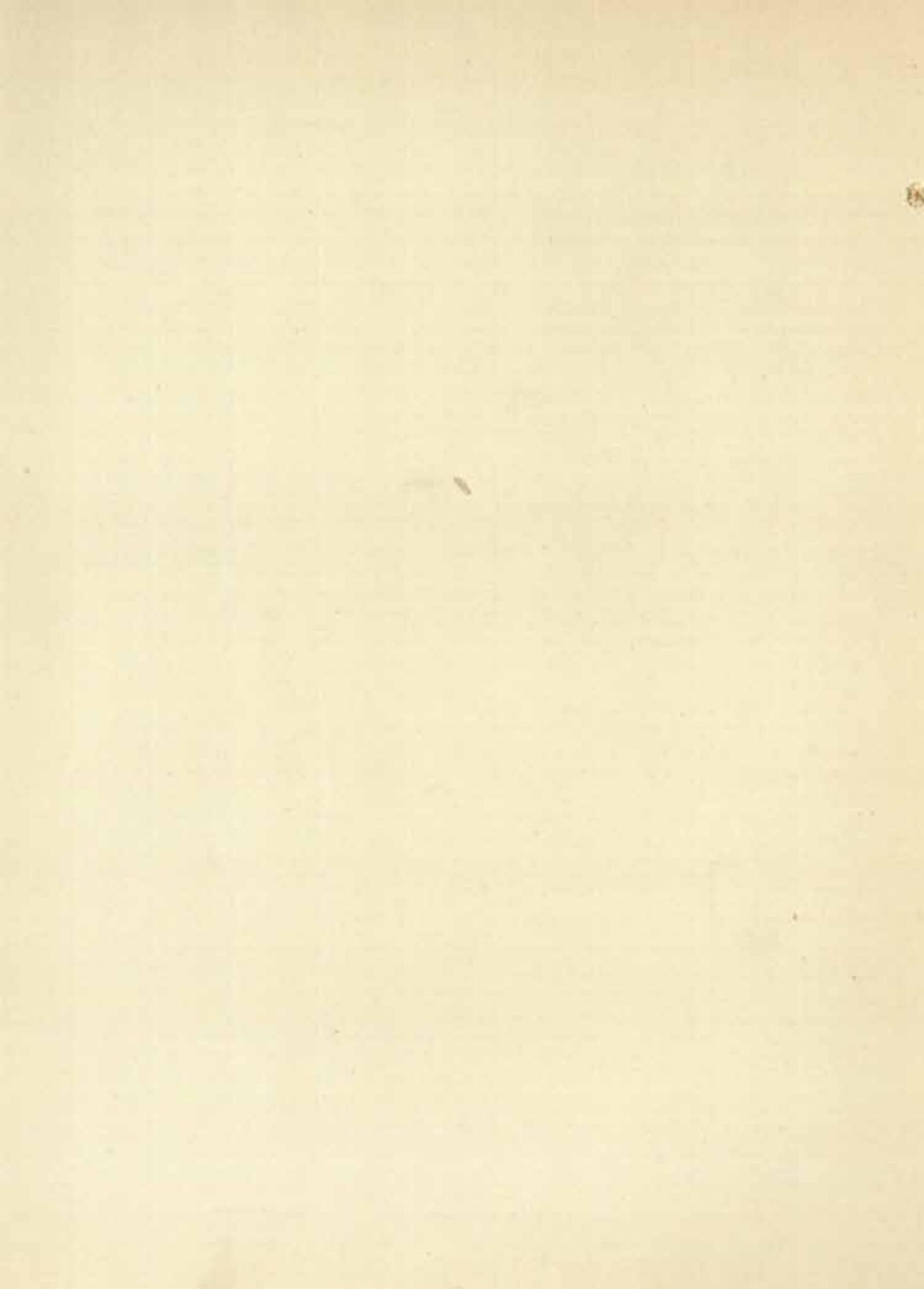
It is a curious spot in which to find a village, especially in Upper Egypt, where the *fellâhin* live as close as possible to the fields they cultivate, building their houses along the strip between the tilled land and the desert; this village is far from any possible cultivation, as far away into the desert as water-transport would allow—for there can have been no wells in this high sandy valley and all water must have been laboriously carried from some well or canal down in the plain, if not from the Nile itself. It would seem to be intentionally separate from Akhetaten and secluded from it. Yet it is a central site; for, as the map shows, it is a converging point for half-a-dozen of the roads still to be traced across the desert; and it is just about half-way between the northern and the southern groups of gallery tombs, with both of which it is connected by those roads. The place is, as we shall see, a workmen's settlement, and it is difficult to avoid the conclusion that its inhabitants were the men employed on the great rock tombs which were being excavated on the edge of the Upper Desert for the noblemen of Akhenaten's court. Perhaps because their profession bore something of the stigma which we know attached to the embalmers, perhaps because tomb-workers in general shared the ill-repute earned by their obstreperous mates at Thebes, they were removed as far as might be from the neighbourhood of the city, and guard-houses were built upon the road that led down to it; at any rate the fact of this



The Grave-diggers' Village.
General view from the south-west.



The Grave-diggers' Village.
Central Room in No. 12 Main Street, shewing hearth, table and baskets.



place lying more conveniently to their work than any other was a good practical reason to reinforce a prejudice.

Of course the rich alone could afford, or were given by royal favour, elaborate tombs adorned with columns and reliefs cut in the solid rock; but poorer men died no less than they and demanded—or their relatives did—a less expensive kind of burial. Many of these would require rock-cut graves, though of a simpler sort, and nowhere else did rock come down so close to the main quarter of the city; this then would seem to be an admirable site for a cemetery of the second class, and clearly there was every intention of so using it. To have put the tombs in the same valley as the village would have had a double advantage; the grave-diggers would have been closer to their job, and the tomb-chapels with their paintings and offerings would have been under the eyes of the villagers responsible for their maintenance and safety. Such a precaution was indeed most necessary. Tomb-plundering was common, and if in the case of the orthodox the fear of sacrilege did not deter the criminals, plenty of people then in Egypt might think it no crime at all to violate the graves of Aten heretics. All round the rock amphitheatre of El-Amarna run the roads of the old patrols. These were not on guard against any foreign enemy; one of their duties doubtless was to prevent desertion on the part of the slaves employed on the buildings of the new capital; another to keep out the profane from the sacred valley of Akhetaten, and this chiefly because such persons might well satisfy their religious scruples by damaging or defacing monuments. If the necropolis of Thebes had to be regularly patrolled, the cemetery of the Aten worshippers stood in greater need of protection, and it would have been no small advantage to have had the graves actually in sight of the grave-diggers' homes. Unluckily this proved impossible. The rock of the valley is of the worst quality, a crumbly marl which will not stand cutting, and where there does seem to be better stone it is but a thin stratum below which are huge boulders. Several attempts to cut shaft-graves were made, and failed, and in consequence the valley was given up as hopeless and the shafts were sunk in the next wady, two hundred metres or so to the north, and in the plateau beyond that, where good limestone was found cropping up to the surface; but the supervision of the tomb-chapels here would have been difficult, and so the chapels were separated from the tombs and we find the shrines built in tiers on the slope just outside the village wall while the tomb-shafts themselves are out of sight over the hill. There was good precedent for such separation, and in this case it was clearly advisable.

The village then was the home of the tomb-diggers and grave-tenders of the royal city, a class of men whom for various reasons it was well to keep at a distance and under discipline. This goes far to explain the peculiar features of the building as well as its position.

Town Planning. (See the Plan in Pl. XVI).

The striking feature of the place is its regularity. Akhetaten itself, like any modern village in Egypt, straggled along the edge between the desert and the sown, and though its streets ran at right angles there was no attempt at the regular grouping of houses or equal division of insulae; a large house stood isolated, surrounded by its own garden and dependences, and next door to it smaller houses were huddled together as best they could find room; when once the streets of the city had been roughly laid out the individual owner or contractor built to suit his own fancy on an area large or small as his means allowed. But in the village it is otherwise. Here we have town-planning in its most radical form, with complete uniformity as its guiding principle. The village is a perfect

square, enclosed within its own walls; it is divided by streets which run through it north by south at equal intervals, connected by cross-roads at either end. With the exception of one house, presumably that of the foreman or clerk of the works, all the houses are equal in size and similar in character and accommodation.

The architect took as his unit a square of ten metres, which formed the ground area of two houses: on this basis it was easy to make the whole into a square, widening the front road or adding an extra block lengthways to balance the space given up to streets. Here, as at El-Lahûn, the square is divided by a heavy wall going north by south into two unequal parts, an eastern or inner part consisting of four rows of houses and four streets, and a western or outer part consisting of two rows of houses and a single street. Each had originally one gateway through the south wall. The southernmost houses were built first, then the others in order towards the north, the outer walls of each being added in a series of L's to that last completed against the long back wall, which was built as a continuous whole. Internal walls were run up later.

The bonding of the enceinte wall shows that the inner village with the dividing wall was constructed first, the outer village merely abutting on it; this does not denote any real difference in date, it was but a matter of the builder's convenience, but to it apparently was due the awkward placing of the village. The architect had planned a square which would just fit into the hollow; but the builder started by putting up an oblong, and chose to place it in the middle of his available flat space; consequently when he came to add his western quarter he was out of his reckonings and had to build on the slope of the valley side and so spoil the plan; actually one house-plot was taken up by a spur of rock and could not be built on at all.

It is instructive to compare this Amarna village with that built by Sesostri II at El-Lahûn for the workers on his pyramid. Different as they are in size, the two plans possess many features in common. In the internal arrangement of the houses there are such minor changes as an interval of five hundred years could hardly fail to bring; but the general disposition, the symmetry of the ground-plan, even the division into an eastern and a western quarter, are identical in both. Whatever reforms Akhenaten might claim to have introduced elsewhere, Egyptian conservatism was undisturbed when it was a question of workmen's dwellings; and these are essentially workmen's dwellings, not barracks; men lived here with their wives and families, and even if they were a somewhat special class, they were neither soldiers nor slaves.

The Streets.

The inner village is entered from the south by a narrow gate in the centre of the south wall, a gate furnished with a door whose wooden hinge-block was found *in situ* let into the stone threshold. This led on to a broad street or square running across the ends of three rows of houses and closed at its east end by the big house of the overseer; out of it four straight and parallel streets go north, dividing the rows of houses, each having doors all along one side and a blank wall along the other: at their far ends they are joined again by a narrow lane, North Passage, which runs under the enceinte wall and has no houses opening on to it. In the outer village a single street, West Street, runs up the centre with houses opening on to it on both sides; this street communicates with South Place by a broad doorway through the long dividing wall, and originally had its own exit through a second gate in the south wall, but in course of time this fell into disuse. It had been an

inconvenient gate at the best, opening on to a rough sloping rock. It was long the custom to use the open space between the gates as a place where the flocks of the village might be kept at night, and in time, what with their droppings and the chopped-straw waste that accumulated there, the ground-level rose and began to block the doorway. Most people went round to the other gate by preference. Then the population dwindled, and the outer village was the first to be deserted, so, since there were now few to use the gate, it was roughly bricked up and a breast-high wall of uncut stones was thrown up anglewise between the buttress-end of the Long Wall and the southernmost house of West Street, to form a regular pen: the cattle stayed on there, and rubbish was flung into the empty space, until the whole south-west corner of the village became the midden we found it to be when we came to dig there.

South Place, on the other hand, stretching in front of what came to be the only entrance to the village, was never blocked up. The only thing in it was a little shrine (?) against the east jamb of the gateway; it was in too ruined a state, when found, for its original character to be made out; all that remained was a simple enclosure with in front of it a miniature flight of stone steps, which looks right up Gate Street.

But if South Place was unencumbered, that is more than can be said of the other streets. Private householders did not hesitate to encroach on the public way with actual building construction. Thus the owners of several houses in Main Street built out from their front rooms small covered tunnels whose roofs made very awkward bumps in the road-level; others let into the ground against the wall big stone bowls surrounded with a mud coping whereon stood the great jars holding the household water-supply, or they built brick mangers against the wall and kept their cows or donkeys there; one can see, built into the brickwork of the manger, the cross-stick with the tethering-rope still fast about it. (Pl. IX. The water-jar seen in the background was found there in position.) The streets must have looked very much like those of a small town in modern Egypt. The resemblance was increased by another feature, perhaps more common than the surviving evidence goes to prove. Outside No. 5 Main Street there lay deep down in the débris a layer of light brushwood with rough beams below but lacking the mud coating which is necessary to a house-roof; it lay quite horizontally and not as it would have done had it slipped from the house-top: it was evidently a light awning such as in the modern *sâq* is often stretched across the road to give shelter from the sun.

There was no attempt at decoration, that was not to be expected; the walls were seldom mud-plastered, and even then there is no trace of whitewash, and as a rule the brickwork was left exposed. The only possible exception is in North Passage; here, immediately opposite the end of Gate Street, an oval niche is cut into the wall 0·70 metre above ground level; it is 0·55 metre high by 0·35 metre wide and 0·40 metre deep, completely mud-plastered. This may be merely another type of manger, but it is tempting to see in it a recess either for an ikon, facing the shrine by the south gate, or for a lamp, visible all the way down the street, or perhaps for a combination of the two.

The Houses.

The type of house is simple. Each has a frontage of five metres and a depth of ten, and on the ground-floor is divided, from front to back, by two cross walls running north by south into three unequal parts, of which the rear section again is divided into two parts by a wall running east by west. There are thus four rooms. First is the entrance-hall, with

door on to the street; then, in the middle, the *mandarah* or main living- and reception-room; of the two small rooms behind, one is always a bedroom, the other a staircase, a kitchen, or both combined. The fact is that the houses are inadequate. There had to be a staircase, and the architect had not allowed for this in his ground plan. Either then the kitchen and staircase had to be crowded together into one small closet, in which case you had to climb over the bottom step to get at your bread-oven, and could hardly go upstairs without bumping against the fireplace, or the room had to be given up wholly to one or the other, and then space had to be sacrificed in the entrance-hall for stairs or kitchen as the case might be. This necessity produces almost the only real difference that disturbs the monotony of the house plans. Sometimes one end of the hall is partitioned off by a coping or low screen of brick behind which are the stove and other domestic fittings, sometimes a narrow passage is cut out of the hall in which the stairs are built; but none the less the general disposition of the house is but little altered and the allowance of four rooms to the ground floor is exceeded only in the one case of the foreman's house at No. 1, East Street.

The stairs led up on to the roof, which was always flat. Judging by the thinness of the walls we concluded that the houses were of one storey only, and this is probably true in the main, and from a constructional point of view. The flat roof plays so important a part in the life of the modern native that a staircase which leads up to nothing but the roof is no anomaly; but just as in a village of Lower Egypt to-day one sees on the roofs shelters built up out of old packing-cases and paraffin tins, so in ancient Egypt it is likely enough that there were on the roofs light structures of poles and thatching or of trellis work, perhaps of mud and wattle, in which the women at work took refuge from the sun. Occasionally these superstructures were of a more ambitious sort; thus the householder at No. 9, Main Street had, apparently above his bedroom, a small harem chamber which, though it must have been for the most part flimsy enough, yet boasted a doorway, or false door round a niche, of brickwork gaily adorned with frescoes; similar but less remarkable remains were found, e.g. at No. 11, Long Wall Street, where the painted plaster had been not on brick but on pole-and-lath work such as must have been the more common material for these roof-buildings. A few other houses produced evidence for upper chambers, and probably there was generally something of the sort; it is only natural that they should perish and leave little trace. But the presence or the character of an upper chamber did not much concern the architect, it was not allowed for in the plan, and it was at best an unsubstantial addition to the flat roof which was essential and invariable. On the roof, whether they had a painted lattice chamber or a piece of matting on three poles to sit under, or nothing at all, the women certainly spent much of their time and did much of their work; pots and spindles and toys were always being found mixed up with the rubbish fallen from above and often lay definitely on top of the roof débris.

The front rooms stood originally about 2.30 metres high. To-day the walls seldom remain to a height of more than 1.80 metres, and even then show no signs of windows. This is to be expected; in Egypt very small windows suffice to give light and large ones let in too much dust; they serve their purpose better if put high up, and they must be high up to secure the privacy which the East demands. The entrance hall then probably had one, or at the most two, small and narrow openings close under the roof; the *mandarah* must have been rather more lofty and was lighted by windows still higher up looking out perhaps both to front and back over the flat tops of the other rooms. The bedroom probably had no window at all; no modern *fellâh* would think such essential, and his predecessor of

the fourteenth century B.C. was not likely to be more hygienic. The kitchen at the back must have had a hole in the roof to let out smoke as well as to let in a little light; some were not properly roofed at all but were merely covered with a pile of light brushwood and straw heaped over rough beams, which kept out the sun and served as fuel when wanted; the same custom holds good to-day.

Building Materials and Methods.

The houses are built of mud bricks, sun-dried, with an occasional use of rough rubble in the foundations and lower courses. Cut stone is employed fairly often for thresholds, and in two houses the door of the *mandarah* was furnished with ashlar jambs topped, in one case, by a rough cavetto cornice; but stone walls never occur.

The average thickness of the main walls is 0.35 metre, but party walls may be thinner and those of less importance are often but screens, one brick, i.e. thirteen centimetres, thick. The enceinte wall of the village has a thickness of 0.75 metre, but when a house was built up against it its thickness seemed to the householder so excessive that he often cut part of it away to form a cupboard or to enlarge his room. The thinness of these mud-brick walls is in itself sufficient proof that there was no proper second story, and that such superstructures as did exist were of the lightest description.

The flat roofs were of the kind normal in the East to-day. Over the main beams,—rough poles, usually quite thin and therefore set close together, often nearly touching each other—there was laid either a bed of light twigs, brushwood and straw, or matting, on the top of which was spread a layer of mud from ten to twenty-five centimetres thick; this forms the roof proper and the floor for those who use the roof. All kinds of matting were employed,—there is no rule in such things—and all kinds were found by us in a remarkable state of preservation. Probably in these poor houses there was no attempt to conceal the beams and matting by means of a ceiling plaster; we did find such in the shrines outside the village, and painted ceilings certainly existed in the palace and in the richer houses of the city; but here no signs of anything of the sort were detected by us.

The span of the roofs is considerable, in the *mandarah* at any rate too great for the slight poles employed if the roof was to be used for walking and working on, and a central support was a necessity. In the whole area dug we only once (in No. 21, West Street) found a stone column, a limestone shaft painted red which had rested on a solid and well-fashioned stone base; but in many houses there was a circular flat stone with a roughened disk on its upper surface, whereon must have stood a simple wooden post. In one case the post itself had survived; it was a stout palm-tree trunk plastered with mud, 2.10 metres long with its upper end cut square and notched to take cross-beams; probably this was the normal type of column. In the back rooms, with their much smaller roof-span, no such support was needed, and no evidence for any was found in the front halls; that the front roofs were used is shown by the fact that the stairs often lead directly on to them; the span, though generally rather smaller than that of the *mandarah* was still considerable, and would seem to require a support, but if any did exist the post must have rested on the bare ground without any stone base and has therefore left no trace of itself. It must be borne in mind that nearly all the heavy timber, being very valuable, was removed when the village was evacuated, and that its absence cannot be taken as evidence; light timber and brushwood, which could hardly be re-used, were left behind and are for the most part wonderfully well preserved.

The stairs were of mud brick; only in one case did it seem at all likely that the treads had been of wood. Treads average 0·30 metre in depth and steps 0·20 metre in height. The stairs either run in a straight continuous flight, when the staircase is cut out from the front hall, or turn round a brick pillar, when the staircase is in the back room. In two cases (Nos. 20 and 22, West Street) the lowest flight was built over a series of roughly constructed brick arches, a half-brick on edge being used as a keystone between sloped bricks; but as a general rule the lowest flight of a turning staircase or the first five treads of a straight staircase rest on a solid mass of brickwork filled in with sand and rubble. Above this a row of poles were laid on a slant, their lower ends embedded in the top course of the supporting brick mass and kept in position by stones wedged between them, their upper ends stuck into holes cut in the wall of the stair chamber; on them rested the brick treads of the next flight, and under them was a cupboard. In one or two instances the same method was used for the lowest flight also, the poles supplementing the rubble filling, and in one of these (Pl. VIII) the wood was unusually well preserved; but what was an exception for the lowest flight was the invariable rule for the upper, and though the beams had nearly always vanished the traces of them in the walls were often discernible.

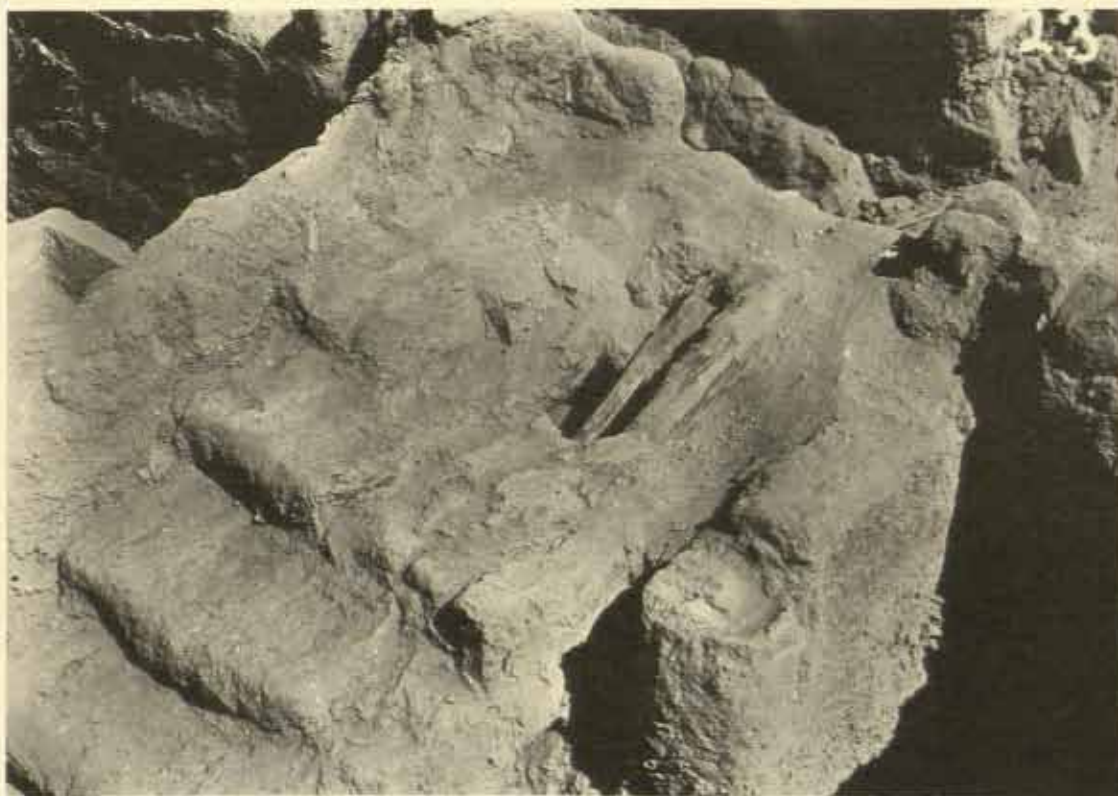
Door-sills were often of stone, occasionally ashlar, more often roughly split blocks, sometimes mere boulders; sometimes they were of wood, but the majority were of plain mud brick. The frames, with the two exceptions noted above, were of wood. The jambs were made fast by pegs driven into the brick door-cases, and where there was a stone sill were let into slots cut in it, or failing this they might be set in small slotted stone blocks built into the brick threshold. In nearly all the houses were found small impost stones in the shape of truncated cones; they were often near the doors and in one case a pair were found in position, one against either jamb; and it is possible that the door-frame rested on these. The wooden door turned on pivot hinges revolving in wooden sockets let into the stone or brickwork of the sill; it had a sliding latch worked from the outside by a string and was made fast at night by a heavy bar dropped into sockets cut in the brick of the door-case.

Decoration.

Coloured wall decoration, which is so characteristic of the rich houses in the city, was naturally less common in the village and even so belonged almost entirely to an early period in its history. As the original frescoes grew shabby and the villagers poorer, too poor to have them replaced, they were covered up first with a coat of whitewash and later, as that in its turn needed repair, with one or more coats of plain mud plaster. The painting seems generally to have taken the form of panels starting about 0·20 metre above floor level; consequently when the houses were deserted and fell in, while the lower parts of the walls were protected by the débris, the painted upper parts were exposed to the action of wind and rain, and the plaster, together with the colour on it, flaked away and left bare walls. It was but rarely therefore that traces of frescoes were found, and then only the lower parts survived, and in a wretched state; coat after coat of whitewash or mud laid over the already damaged paint had to be picked off bit by bit, too often bringing the paint away with it, so that it was very difficult to recognise much of the original design. But one may fairly assume that colour was far more freely used than the present state of the walls would seem to show; the workmen who so lavishly decorated the shrines were sure to keep back some of the paint to beautify their own homes, and the disappearance of their work is only the natural result of circumstances.



The Grave-diggers' Village.
Central Room in No. 15 West Street.



The Grave-diggers' Village.
Staircase in No. 9 Long Wall Street,
shewing the timber supports of the brick treads.

At a later period another type of decoration was employed, rough monochrome sketches in black on the whitewashed walls or in white on the plain mud plastering; paint seems to have run out, and we have a cheap substitute which itself was soon to die out and to give place to mud unadorned.

In one instance, No. 7, Long Wall Street, a sketch is found on the wall of the entrance hall, but otherwise all decoration discovered *in situ* is reserved for the *mandarah* or reception-room, as indeed is natural enough; other ground-floor rooms were whitewashed or simply mud-plastered. But in several houses we found high up in the filling, and in the case of the best example (No. 10, Main Street) lying definitely above the débris of the roof, remains of coloured work which assuredly did not belong to the rooms in which they happened to have fallen; they must have come from a harem chamber on the house-top, of a more than usually ambitious type, adorned with jambs or pilasters of painted brick. Our best piece is very much in the style of the shrine paintings; the pilaster seems to have helped to frame a panel in which there was an inscription in black on a yellow ground and a polychrome design with a human figure, probably a scene of Aten worship. The frescoes of the ground-floor rooms show generally only borders of lotus leaves, chevrons or circles, these also in the shrine manner; one (in No. 2, Main Street), apparently contained figures of Bes. The later monochrome sketches give in two cases rows of Bes figures, in one a row of human (?) figures alternately big and little.

The Rooms.

1. *The Front Hall.* The street door of a house led straight into the front hall or outer room, which measured about five metres across by two or two and a half metres deep and had in its far side a door giving on to the *mandarah*. It was essentially a "general utility" room. Sometimes, undoubtedly, it was shared with the smaller cattle; a manger against one wall is a common feature and tethering stones were occasionally found, while the rough stone troughs which often occurred in the outer rooms were probably for watering the animals; in a few cases there is found in one corner a patch of flooring strengthened by having big boulders let into it, and this seems to have been the place where the beasts were tied up; but when the north part of the room was cut off for a staircase, the cupboard under the stairs was always found to contain a litter of chopped straw and a little grain, so that generally we can take this to be the store of fodder for the animals in the main room; but in some cases, *e.g.* No. 12, Main Street, the presence of a manger in the cupboard itself shows that they might be moved into here out of the way. Indeed, while allowing for the principal herds being penned in the south-west corner of the village and for an occasional cow or donkey being tied up for the night outside the front door, we can safely say that more often than not a man's beasts shared his house with him. But they were confined to the hall. Only once, at No. 11, Main Street, was there proof of animals being kept in the *mandarah*: here there was a brick manger against the south wall and in front of it, embedded in the floor, a naturally-pierced boulder with the tethering-rope still fast through the hole; but the case is so exceptional that one suspects a pet goat! The only other exception was in No. 3, Main Street; the family were the proud possessors of a horse, and were so nervous for its safety that they kept it, rather straitly confined, in the little cupboard under the back stairs. There were probably very few horses in the village¹.

In other cases the front hall was a workshop. In four of the houses in Main Street

¹ Possibly we have misinterpreted the evidence; but who would make such a fuss about a donkey?

there was in the front wall, at or just above floor level, a square hole continued by a covered trench some two metres long running under the street; in apparent connection with this (see especially No. 8), there were square stones slotted to hold the ends of horizontal beams, one standing just in front of the hole, the other immediately opposite to it against the east wall; it looked as if a heavy beam had rested in these with a prolongation beyond the house wall. Such stones occurred in a good many houses where there was no hole in the wall, not always in front rooms,—but as they might be found high up in the filling there was nothing to show their original position,—and nearly always in pairs. I suspect them to be sockets for the bed-beam of an upright loom. We found a large number of slightly curved dagger-shaped objects of wood which resemble those used for picking out and holding up warp threads in tapestry weaving; weaving is so likely to have been practised in the village that, failing conclusive proof, the conjecture about the looms may be allowed to stand.

Not uncommon in the front halls were square hearths or open fire-places quite distinct from the ordinary cooking hearths. They were built just like the mangers and sometimes could only be distinguished from those by the presence of ashes on them or by the blackening of the wall above; quite possibly the uses were alternative! With them one might connect the clay crucibles so common on the site; there was nothing to show what was melted in them, but they must represent some kind of industry; as limestone moulds for amulets were found, they may give the required explanation. Parts of bronze drills worked with a bow, unfinished stone finger rings, the core of a tube-bored alabaster vase, and the stone table on which the stone-cutter worked, covered with drill-marks, spoke of other minor trades carried on in the village and probably for the most part in the front halls; paint-brushes and a stick covered with modelling-wax (cf. BORCHARDT, *Smithsonian Report* 1915, 453) might be connected with work on the tomb chapels. Only in one case did we find evidence of a regular workshop; the owner of No. 13, West Street took advantage of the fact that the building-lot north of his house was left vacant owing to the nature of the ground and used it as a factory; at least we found there a furnace of a type not met with elsewhere and crucibles and drill-cores which seemed to witness to a more professional trade than was carried on in the houses. In the hall too the men would keep their larger tools,—pick and winnowing fan and adze, chopping-block and pestle. When the small room at the back was monopolised by the staircase, the front room had to serve as kitchen also, and then we find one end of it partitioned off by a low mud screen behind which are all the necessities for cooking and bread-making. If one looks into the front of a Greek cottage in Ouchak or any western Anatolian town, one gets very much the effect that would have been given by one of these Amarna houses when the village was still alive: there is the carpet-loom blocking up half the space, the goat tethered against the wall, and bread being made in the corner, while close to the door itself the good-man may be mending shoes.

2. *The Mandarah.* The amenities of life were first met with when one entered the *mandarah*. If the entrance halls of the various houses differed a good deal, custom imposed a respectable uniformity upon the room where one dined and received one's friends.

The room, as we have seen, was loftier, and its roof was supported by a post or posts, even by the dignity of a column; its walls might be decorated with frescoes. Along one or two of its sides ran a divan, a low platform 0.10 to 0.20 metre high, of mud brick, on

which would be spread matting and perhaps rugs or cushions. Conveniently close to this was the hearth, generally a shallow clay bowl set in a ring of mud which on one side projected to form a flat hob for the food vessel. Somewhere or other against the wall was the water-supply so necessary for ablutions as well as for drinking; the great round-bottomed jar stood in a ring-base of pottery or of stone, roughly hour-glass shaped, and this might simply be set upon the ground or might stand in a shallow stone bath; the bath was either solid or had a drain-hole leading to a pot buried rim-deep in the floor, for the big jars were porous and there was no point in letting run to waste water that had to be carried from so far. A very common feature in the *mandarah* is a pot buried in this way, and at first we regarded all as store-vessels, which indeed they often must be; but on second thoughts it seemed probable that these too served often as stands for the water-pitchers. Other big jars might be set about the room, either on ring-stands or let into the ground, just deep enough to keep them steady (for most are round-bottomed), or buried to the rim in the floor; they would serve various purposes, the storing of food-stuffs in current use being the most probable.

Of other furniture, the *mandarah* boasted a certain number of stools and tables. Rarely the stool was of wood, four-legged and low, with a cane or string seat; more commonly it was of stone. The usual type of stone stool was three-legged and semi-circular, the top neatly hollowed to give comfort to the sitter; poorer examples were solid to the ground; occasionally they were square with curved seats. The table was often but a disk of stone five to ten centimetres thick, cut roughly round the edges but smoothly polished on top: the under side was left rough and slightly convex and must have been let into the floor, but none was found by us in position. Both stools and tables proved remarkably useful to the excavators at lunch-time. Another form of stone table was rectangular and oblong, the top was smooth (so smooth that one suspected people of the bad habit of sitting on the table) and the under side was hollowed out so as to leave outstanding only two narrow ridges along the sides and a couple of cross-bars; probably this was to give a smaller bearing surface and so to secure greater steadiness on a floor often none too even.

At night the room was lit by lamps either standing on the floor or set in small niches cut in the wall about a metre up from the ground, or on a bracket made by the simple expedient of driving two pegs side by side into the mud brick and plastering them over with a daub of mud rounded off in front. The lamps had no very distinctive shapes, but were saucers filled with oil or fat with a wick stuck into it. At night the divans presumably served as beds for members of the household not provided for elsewhere.

3. *The Bedroom.* The bedroom presents as few features of interest as does that of the present day *fellâh*; it possesses four walls, a door, sometimes a mud floor, more often one of sand only; in a few cases there was a niche for a night-light cut into the wall. One bedstead was found, in Main Street, outside the front door of No. 3; it was the usual "angarib" consisting of a wooden frame with a cord mattress; probably there were many such in use, but they were carried away when the village was evacuated. Sometimes, as in No. 8, Main Street, the half of the room where the bed was to be put had a raised mud-brick floor, reminding one of the raised floors which in the rich houses of the city distinguish the so-called "master's bedroom": probably in these cases there was no bedstead but a mattress spread on the brick platform. Sometimes, as in Main Street, Nos. 7 and 9, two low walls of a single brick's thickness and about 0.30 metre high, abutting on one of the side walls, supported the bedstead, which must have been a mere wooden frame without legs, and at the same time afforded space beneath it for boxes containing household linen or spare clothes

(cf. BORCHARDT, *l. c.*, p. 450). These walls, except for being much lower, are just like the shelf-supports in the Vizier's house, and it may well be that some householders preferred to sleep on the roof and used the ground-floor bedroom merely as a cupboard. Pillows or headrests of the ordinary type, both in wood and in stone, were found, though they were not common.

4. *The Kitchen.* Though cooking was fairly often done in the front room, yet in a well-ordered house one of the small rooms at the back was in part or, if not encumbered by the staircase, in whole, devoted to the making and cooking of food. Of the kitchen pure and simple the most complete example was afforded by No. 10, Main Street, and a detailed account of this will serve to describe all.

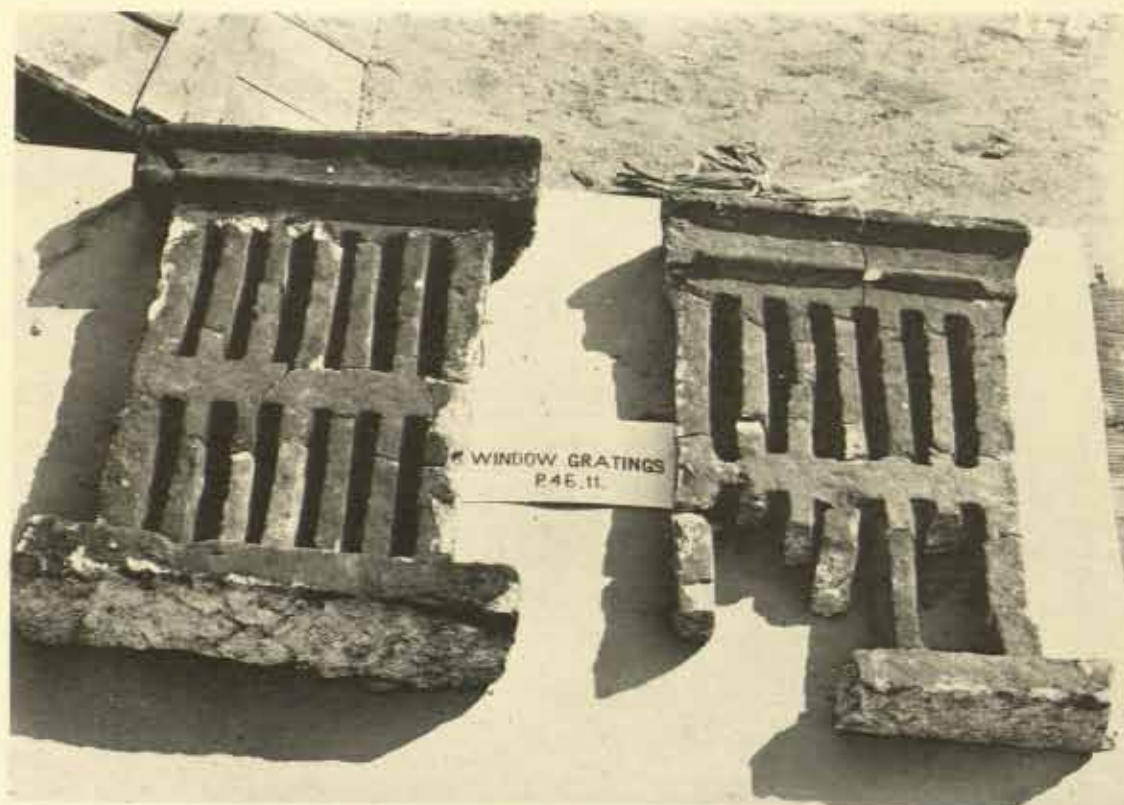
In the south-east corner is the bread-making area, separated from the rest of the room by a low coping of plastered brick, the floor inside being carefully mud-plastered. Into the floor is let a mortar of hard white limestone, used for bruising wheat for porridge (*burghul*) and for grinding hard grains; on a cloth laid on the floor the grain would be spread out after washing and sieving to be picked over, and the dough would be made and kneaded. Next to this, against the south wall, is a shallow open bin 0.10 metre deep, perhaps to hold the grain ready for immediate use, while the big bin beyond it, 0.65 metre deep, would contain the main supply. Another bin 0.75 metre high occupied the north-west corner of the room. Next to this was an open hearth consisting of an open-ended trough for burning wood, then a solid brick hob, and then a small box-hearth for charcoal. In the north-east corner was the bee-hive shaped oven made of a big thick-walled pot heavily plastered round with mud and with a small draught-hole at the base and an open top intended to be closed by a clay lid. A charcoal fire was lit in this and the mass of clay and brick was well calculated to retain the heat; the dough was put into a platter, flat-based with low vertical sides, which was originally of unbaked clay and was itself baked with the bread (we find examples showing all stages of firing; and the same practice holds good in the neighbourhood to-day); the loaves were left in the warm kitchen or stood in the sun for the yeast to work, and when they had risen enough they were put into the oven, saucer and all, without the trouble being taken of drawing the ashes.

Another form of hearth was the box-hearth on a high base of solid brick (very much like the mangers) which sometimes was vaulted over to form an oven; but it cannot have worked so satisfactorily as the bee-hive type. Charcoal was commonly used as fuel, and we found plenty in the ovens and in the cupboards under the stairs; wood was also used, and there was some evidence for dung-cakes, but it was not conclusive. The stone mortars were of precisely the same shape as the stone bowls, also let into the floor, whereon the water-jars stood; the only difference was that whereas the mortars were smooth at the bottom and the upper part of their sides might be comparatively rough, the jar-stands were worn smooth round the rim and were rough at the bottom. With the mortars were used big club-shaped pestles of hard wood, as much as 0.95 metre long.

The ordinary cooking-pot was a round-bottom and round-bellied "marmite" with low straight rim and wide mouth, made of thin hard-baked clay. Amphorae for carrying and keeping liquids were generally of a porous greenish ware. Shallow bowls of coarse clay were the commonest of all types after the big store-jars; doubtless they were the food dishes of every-day use. Painted pottery, common in the city houses, was rare in those of the village, but we did find here three of our best specimens,—two curious openwork vases and a handsome handled pot with a black design on a rich burnished red ground. All



The Grave-diggers' Village.
View looking north along Main Street,
showing manger with tethering-rope, water-jar in position, etc.



Stone Window-gratings.



kinds of baskets were common, and basket-work trays were doubtless used for bread-platters as they are to-day.

When the back room was wholly given up to the staircase it presented no feature of interest other than the cupboard under the stairs, which was often used for storing fodder, but in other cases produced remains of dom-palm nuts, dates and grain or husks.

There was one important respect in which the village houses differed widely from those of the city. In Akhetaten even the smaller houses are provided with granaries and store-rooms such as are necessary for people who in the autumn lay in supplies of grain, etc. sufficient to keep the household till the next harvest. The same need for brick bins, circular granaries and brick-lined underground stores is felt in the modern village, where the same habits persist, and it is surprising to find in this settlement out in the desert no provision made for keeping food in bulk. Of course here they had no harvests of their own to store, for there was no cultivation, but one might have thought that it would be even more necessary for people dependent on bought supplies to get in their stuff at the season when it was cheapest and to buy largely enough to tide over the winter when prices rise. The only explanation is that the villagers were working men engaged either by a big contractor or by the State, who got their rations regularly and at short intervals and so had no need to take forethought for themselves. If they were engaged in digging the great rock tombs, they certainly were State employees and as such would be provisioned by the King's government; it is perhaps not without significance that the jar-sealings and graffiti found in the houses refer to wine of the House of Aten from the royal vineyards, or even that one jar-sealing bears the written name of Pa-wah, the name of the high priest of Aten in the sacred city on the plain below.

Religion.

There was but little left in the ruins to mark the religious views of its inhabitants. Naturally they must have been, on the surface at any rate, devout followers of the orthodox Aten worship, but there can be little doubt that with poor working men the traditional beliefs,—or rather superstitions,—of the past would be scarcely affected by royal prohibitions. The favourite deity was certainly Bes; we found many glazed amulets of that god, and his is the only figure that can be recognised on the wall paintings. The sacred eye of Horus, in the form of a ring bezel, is equally common; Tuêris occurs three times only, on amulets. The head of Hathor appeared as a decorative motive once on a stone bowl, once on the rim of a clay vase; a wooden Hathor head was probably decorative also, a part of a casket or something of the sort, not a cult object. The only things that did seem to be cult objects were painted clay figurines of Uraeus snakes, which at least had the advantage of not being vetoed by the Aten worshippers. Stone offering-tables were of common occurrence, and show that religion was not altogether neglected.

The "evil eye" superstition seems to be illustrated by a slab of limestone roughly carved in relief with four human hands, the most widespread form of prophylactic amulet. A quite common object was a small ball of mud, sometimes stamped with the impressions of signet-rings, containing a wisp of hair: they may have been dedications, a lock of a child's hair being vowed to a god in the event of his reaching puberty,—a practice still current in some districts of Upper Egypt,—or they may represent a more malevolent type of domestic magic.

Chronology.

That the village was contemporary with Akhenaten's city goes almost without saying: if our view be correct that it was the residence of the workmen employed on the tombs, it is indeed necessary. For internal evidence we have to rely almost entirely on ring-bezels bearing royal cartouches and on wine-jar sealings and labels. It is true that we found one scarab of Amenophis III (22/98) and one of Tuthmosis III (22/180); but the first of these was doubtless an heirloom and scarabs of Tuthmosis III were made long after the king's death. Of Akhenaten we found one glazed amulet (22/162) and five ring-bezels, as well as several graffiti on wine-jars; of these, one is dated, doubtfully, to the eighth year of the reign, one to the eleventh, and several to the seventeenth. Three bezels bear the cartouche of S^ca-ka-rê and no less than nineteen that of Tut-ankh-amûn.

It will be observed that the bulk of the dated objects come late in the reign of the heretic king or after its close; but it would be rash to deduce over-much from that fact. Glazed frit rings are fragile and short-lived things of small value, which would soon be broken and thrown away; in the deserted houses one could only expect to find those most recently worn and broken, and so the bezels should be taken as dating the evacuation of the village rather than foundation.

The ruins themselves show that the houses were inhabited long enough to undergo various repairs and to suffer from a steady and long-continued decay. In its early days the place evidently was prosperous, as is proved by the painted decoration of its walls; later on there is every sign of growing poverty. In Tut-ankh-amûn's time, when the decision had been taken to move the Court back to Thebes, gallery tombs at Akhetaten must have been at a discount, and the tomb-diggers suffered accordingly. One could not but be struck by the fact that whereas in the inner village all sorts of domestic utensils in wood and wicker were found in nearly every house, and everywhere the rooms were cumbered with fallen roofing material, in the outer village only broken pottery and small stray objects came to light and not a fragment of wood was discovered. Clearly the western quarter of the place was evacuated first, and wood, being valuable material, was sedulously carried off, the larger cut timbers for new use elsewhere, the boughs and brushwood to be burnt in the houses of the still inhabited inner village; and in view of this it is the more interesting to observe that the outer village produced as many as nine of the latest dated ring-bezels. It is safe to assume that the place was built in Akhenaten's time: it is certain that by the end of Tut-ankh-amûn's reign it was completely deserted.

II. THE MAIN CITY SITE.

Though a large part of our season was devoted to the outlying sites already described, yet the main city was by no means neglected. A considerable area containing twenty houses was cleared between the High Priest's Street and the Sikket-es-Sultân north of the wadi which cuts across the ruins; to the west of this and close to where Dr Borchardt suspected the existence of a second sculptor's atelier three small houses were dug, but the quarter proved to have been so thoroughly destroyed by *sabbâkhîn* that we abandoned it as hopeless; further south we excavated a group of houses in the immediate neighbourhood of Ra^c-nefer's house, thus continuing the plan of Professor Peet's work last season, and five rather isolated houses lying between the Expedition's headquarters and Hagg Qandil village, towards the southern outskirts of the central portion of Akhetaten.

Of all the private houses dug this year by far the most important was that of Nekht, Akhenaten's Vizier; indeed it is the finest yet found at Tell el-Amarna, surpassing in size and magnificence even the mansions of General Ra^c-mose and of Pa-wah the High Priest: we had reason to be thankful for the chance discovery of a few scraps of inscribed limestone on the surface of the mound which induced us, almost at the last moment, to undertake its excavation.

The Vizier's house, like all those of the better class, was raised on a platform (0.60 metre high) made by filling in up to the required level the space enclosed by the outer walls, and was laid out on the normal Akhetaten ground-plan, but its great size (it measured some thirty-five by twenty-six metres over all) allowed of an unusually large number of chambers in the domestic quarter. Although in this respect it was not strictly speaking typical, yet a description of it, as fulfilling better than any other the ideal of all the good Tell el-Amarna houses, will serve as a general description of them all. (See Plan etc., Pl. XVII.)

A flight of shallow steps against the north wall, with a low balustrade wall on the other side, led up to the front door (Pl. X). This was framed in heavy limestone jambs whereon were inscribed the name and titles and some of the virtues of the owner; the surface of the stone was painted yellow and the incised characters were filled in with bright blue paste. Through a lobby dignified by two columns, with whitewashed walls and inner door-frame painted yellow, and through a whitewashed ante-room whose door-jambs, white below, were painted above with horizontal bands of red, blue, yellow and green, one passed into the north loggia. This was a hall of noble proportions. The ceiling of a brilliant blue was supported by eight wooden columns resting on massive stone bases; the walls, white below, bore near the ceiling a frieze of blue lotus petals on a green ground with a red band above; the floor, made, as were all the floors in this house, of large unbaked tiles, had originally been whitewashed, but at a later period had received a fresh coating of mud plaster and had been painted in bright colours of which only traces of red and yellow remained. Along the north wall was a row of large windows, set fairly high up, looking out over the garden. In the middle of the south wall, facing the windows, wide folding doors on whose stone frame an incised and painted inscription repeated the Vizier's honours opened on the central hall; the long expanse of wall on either side of this was broken by smaller single doors. At each end of the hall two doors led to the service chambers; the three rooms at the north end (4, 5, 6) were perhaps for the accommodation of travellers, who could sleep here without intruding on the intimacy of the domestic quarters; at the south end, next to the ante-room, was a little chamber (7) containing a cupboard (?) which may have been the porter's private apartment or the store-room where was kept the bedding required for the guests of the house.

The central hall, the main reception-room of the house (8), was about eight metres square. Four columns grouped in the centre supported the lofty roof; in the middle of the south wall, facing the entrance from the north loggia, a double door with inscribed stone jambs opening on the inner reception-room gave a further effect of spaciousness to what was in itself a spacious apartment. As one entered one saw on the left hand a brick divan which stretched the whole length of the east wall; it was raised but slightly above floor level, but was enclosed by a low whitewashed coping wall with three entrances; it was evidently the place reserved for the master of the house and his more favoured guests. In front of the middle entrance to the divan, between the two eastern column-bases, a circular depression in the paved floor showed where had stood a portable hearth,—the brick hearth

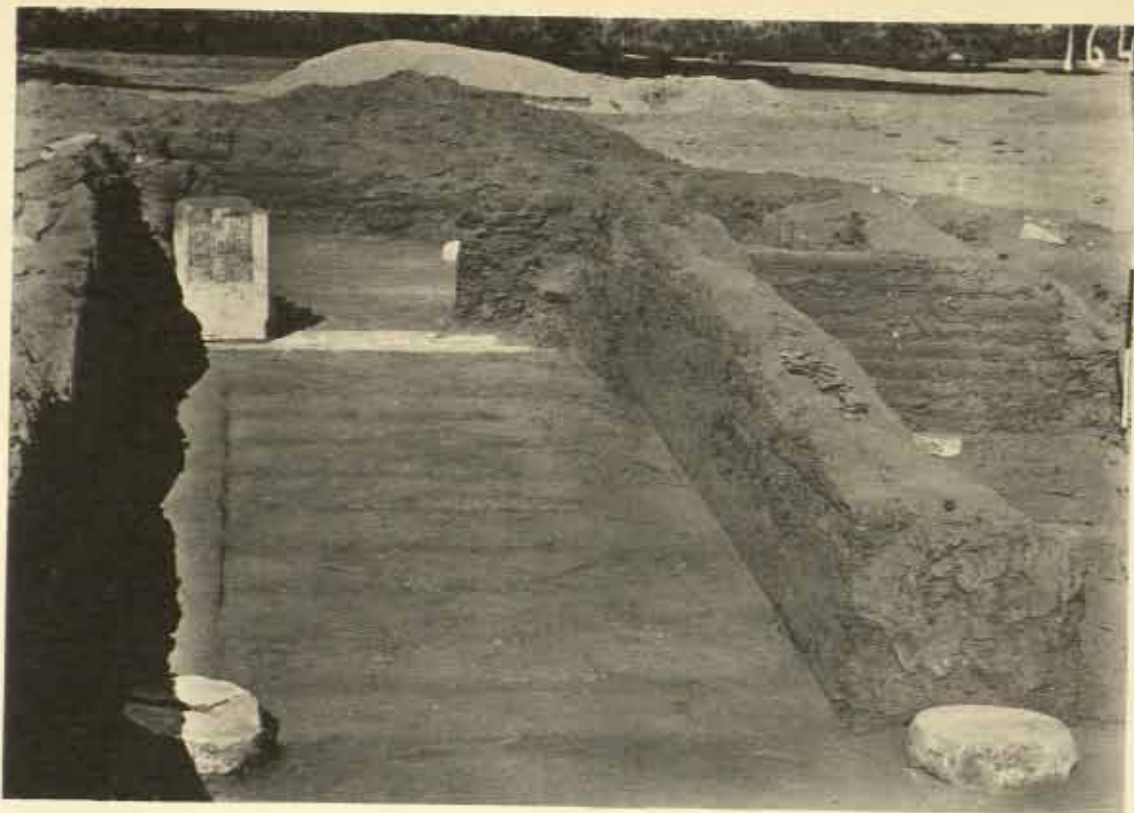
usual in these reception-rooms had here been replaced by something probably more ambitious. Projecting from the west wall was the square ablution platform, its raised floor and coping and back screen all of cut stone; those who would wash went up by a single stone step on to the platform, which measured two metres by one and a third, and helped themselves to water out of a great jar which stood in a slight hollow cut in the centre of the paving. (See a reconstruction of the room on Pl. XVII.)

On either side of the hall were two doors, those on the west leading to the western loggia, those on the east one to the broad flight of stairs (11) that went up to the first floor rooms, one (13) to a passage off which opened bedrooms and store-chambers; in the south wall a second doorway gave more direct access to the private apartments, and balancing it on the west side of the main folding doors was a painted niche. The ground of this and its frame were painted a bright dark red which stood out strongly against the prevalent white of the walls: an inscription in yellow hieroglyphs on the frame reiterated the dignities and the merits of Nekht, while a metre and a half up on a central yellow panel which ran from top to bottom of the niche, King Akhenaten was portrayed worshipping the cartouches of the Sun god.

The central hall seems always to have been lofty, rising well above the two storeys of the domestic quarters adjoining it, and was lit partly by secondary light coming through the loggia doors, partly by windows of its own set high up under the roof. Barred window-frames cut out of stone were found this year in a small house in another part of the site (Pl. IX) and those of Nekht's house were probably of the same type though perhaps more elaborate. It was because windows were small and the principal lighting of the rooms indirect that walls were always whitewashed and such colour as there was (apart from the niches) came high up and took the simple form of a rather narrow frieze with in some cases festoons of conventional flower motives; a fragment of plaster with blue and white lotus leaves between bands of red and blue found in this hall may have belonged to such a festoon.

The west loggia (9) was another long verandah-like room with large windows all down one side taking the afternoon sun; it was, one imagines, the winter lounge, used when the north loggia became uncomfortably cold. Two rows of columns, three in each row, supported the blue-painted ceiling, which again was probably not very high. At either end was a niche adorned with inscriptions—the titles of the Vizier round the frame and in the centre a short hymn to the Aten, in black characters on a yellow ground—and pictures of the king adoring the cartouches of the Sun; and at either end there was a door, that at the north opening on to a small chamber of whose use we know nothing and the southern leading through a lobby to the side entrance of the house.

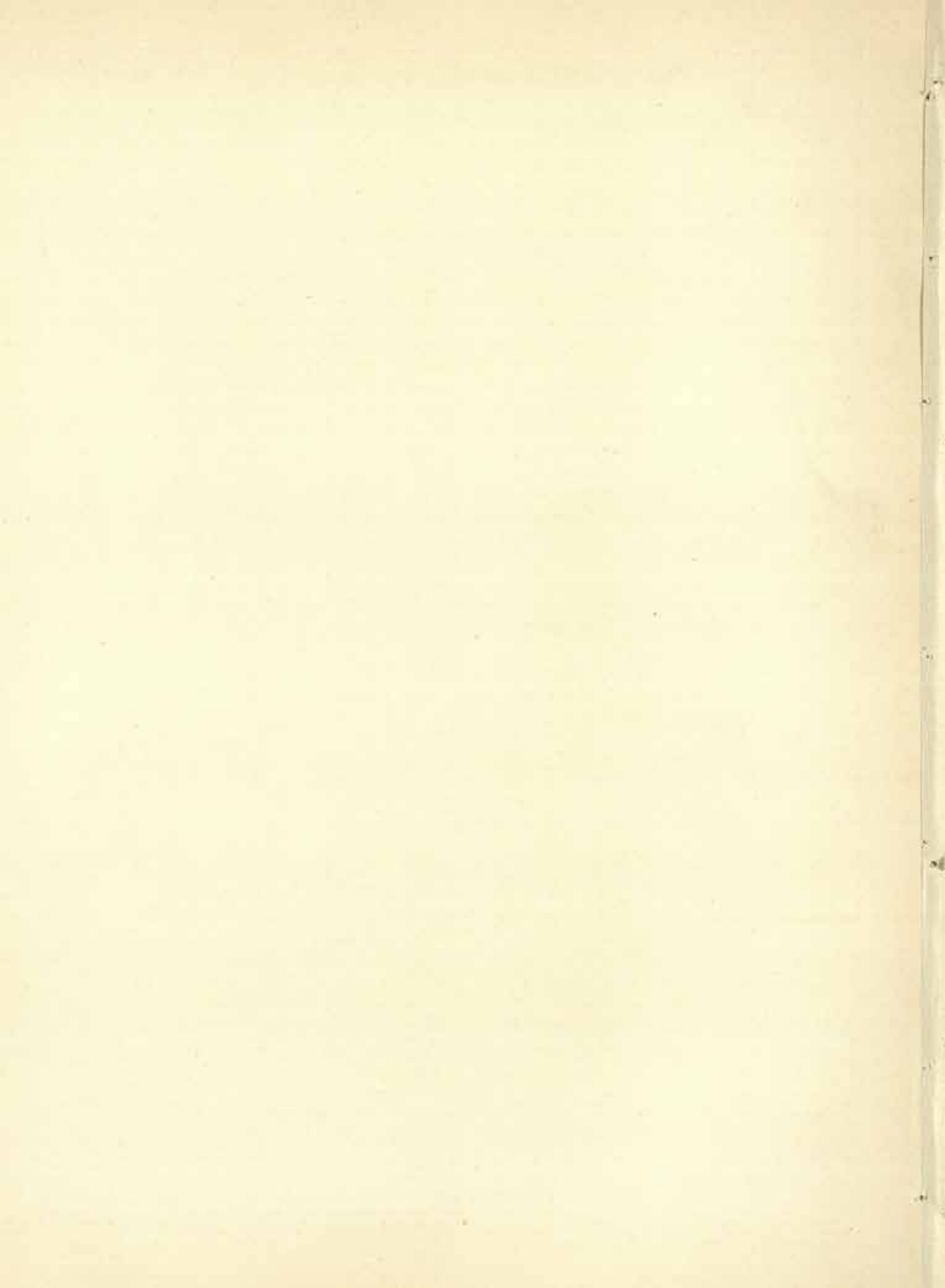
All these rooms belong to the more public part of the mansion, that where the guests were entertained and lodged; a wall running right across the house from east to west separated them from the domestic quarter reserved for the family of the Vizier. In the middle of this back part of the house, with double doors opening on the central hall, is the inner reception-room (16). On a smaller scale it reproduces the main features of the central hall itself. A single column stood in the centre, and beside its stone base is a circular bowl-hearth with a hob of mud brick; against the west wall is the railed-in divan with three entrances in its low coping wall, and against the south wall is the stone lustration-platform (Pl. X): a painted niche occupies the south-west corner; two doors in the south wall lead to cupboard-rooms with cemented floors and broad shelves resting on brickwork supports. An inner reception-room such as this is found only in a few of the largest houses, *e.g.* that of



Steps leading to front door of the Vizier's House,
showing inscribed door-jamb and entrance lobby.



View in the House of the Vizier Nekht,
looking through the main reception-room (8) to the
inner reception-room (16) and store-room (18).



the High Priest; that it was essentially a private apartment reserved for the use of the household is shown by the fact that in one of the rare cases where it occurs (O. 48/14) it is separated by a passage from the central hall and the doors are so arranged that there is no direct view from one to the other; and by the further fact that in other large houses where no such room exists the big bedroom in the south-east corner of the house, usually called the mistress' bedroom, possesses some of the furnishing of a hall (divan, hearth, etc.) and must have served a double purpose.

The two other chief rooms of the domestic quarter are the bedrooms of the Vizier and his wife. Each of these (Nos. 21 and 27) has the low dais in a slight recess at one end which we are accustomed to regard as characteristic of the man's bedroom. No. 27 possessed as usual its own bathroom (29) and lavatory (28), but unluckily this corner of the house is badly ruined and for the arrangement of the offices we have to look elsewhere. In house L. 51. 1, excavated this season, the stone bath itself has disappeared but we have the raised platform on which it stood, the steps going up to it whereon the servant stood to pour the water over the bather, the cement-plaster on walls and floor, and in the floor the hollow for the great round-bottomed water-jar; the lavatory has behind a screen wall a low platform with central drain and on it the brick supports for the wooden seat of the simple earth closet. The bathroom and lavatory of room 21 (Nos. 22 and 23)—if these are such, and not extra bedrooms or dressing-rooms—were built as one long chamber but were divided off by a thin screen wall of brick ornamented with moulded panels; the floors were cemented and the walls whitewashed.

Of the remaining chambers, 19 is perhaps a servant's room or a store, 26 is given over to cupboards and might be the master's wardrobe, while 20, 24 and 30 are sections of a long passage running the whole width of the house, and 25 is the passage leading to No. 27 (Pl. XI).

It will be remarked that there are no kitchen or servants' quarters. While a few domestics, the nurse and the tirewoman, might sleep in rooms on the upper floor, most must have been lodged in a separate establishment, a small house such as is generally found in the garden or court of the larger mansions. As regards the cooking arrangements, in all the better houses we find the baking-oven outside, in the courtyard or in an outhouse; of the kitchen proper, always a prominent feature of the poor houses, we find no sign at all, and it may well have been on the upper floor.

The greatest height to which house walls are ever found standing is two metres, and naturally there is never anything left of the upper storey; but about the arrangement of this the ruins of the Vizier's house have given us more information than had been forthcoming previously. In the west loggia we found four fallen stone column-bases (diameter 0.63 metre) and outside the north wall of the house, in front of the steps, seven other more or less complete examples (diameter 0.53 and 0.45 metre) and a few fragments. Now there was no place for these in the ground-floor rooms, where all the column-bases were found in position, and they must have come from above, and then the places in which they lay are useful evidence. There can be no doubt that the walls of the first floor followed the lines of the heavy ground-floor walls and that the general plan was similar except that the central hall and (presumably) the inner reception-room rose to the full height of the house and therefore had no rooms above them. But the two loggias were probably not very lofty, and it would seem that the columns of the lower storey were reproduced above by lighter shafts placed immediately over them (I assume an original six bases where four were found

and eight where seven remained), thus giving two large galleries—the banquetting-hall and a women's court?—along the north and west sides of the house while bedrooms, kitchens and offices would occupy as much of the other two sides as was not taken up by the staircase. Viewed from the outside, the whole house would form one solid block, the central court and back reception-room rising slightly above its flat roof but hidden from sight by a low parapet wall. The lobby at the top of the front steps was probably one storey only.

Excavation has not yet gone far enough for us to be able with any assurance to attribute individual characteristics to the different parts of the city; but it would seem as if, south of the great rectangle formed by the palace, the temple or temples and the government offices (e.g. Petrie's No. 13, which is certainly not a private house) there extended a large and densely populated quarter in which, while there are a few fairly big houses, the majority are quite small and were occupied by artisans, sculptors' assistants, glass-workers, faience makers and the like: the wealthier houses dug as yet lie either along the broad High Priest's Street on the eastern or desert edge of the town, or along the King's Highway which skirts the present cultivation, to the west or at the extreme south end of the middle city.

Digging in this industrial quarter we found this year a centre of glass and glaze manufacture. There were no factories; the workmen carried on their trade with the simplest of appliances in their own small houses and courtyards, after the normal fashion of the East, so that there was little to distinguish these ruins from others of their size; but from them we recovered a fine series of specimens illustrating every stage of the industry. This material is precisely similar to that obtained by Petrie, who (*Tell el-Amarna*, p. 24) has so thoroughly discussed the process of manufacture that there is no need to repeat it here.

As most of the houses dug this year were small or at best normal examples of the type belonging to well-to-do but not wealthy people, such as have been fully described by Professor Peet, no general account of them is necessary. But from the season's work we have gathered certain new details about the Akhetaten houses in general which should be recorded.

Dr Borchardt, discussing his attempted restoration of the central hall of Ra-mose's house (*M.D.O.G.*, 55.) remarks on the surprising lowness of Egyptian doors. This year we were lucky enough to find a complete doorway which more than bears out his statements. The doorway, which led from the central hall to the chief bedroom of a small house (M. 50/13) was of sandstone painted bright red; the lintel and one entire jamb were found. The door aperture measured only 1.48 m. high \times 0.63 m. wide; in our photograph (Pl. XI) the man standing is unusually tall for a native, but the door is clearly of a most inadequate size. In larger houses the doors were probably not so uncomfortably low, but they were certainly not lofty.

As regards the decoration of the door-jambs, our evidence tends to show that these were generally white below, and that only the upper part was painted with the horizontal bands of colour which Dr Borchardt restores right down to the ground.

New to us is the use of floors of large thin tiles of crude brick instead of the ordinary building-bricks which were normally employed; also the painting of the mud wash above the tiles with bright colours instead of plain whitewash,—a cheap imitation of the frescoed cement floors of the palace.

Traces of red paint are not infrequently found on the stone column-bases, whence Dr Borchardt assumes that the shafts of the columns were usually of this colour. This may



Stone doorway in house M. 50/13.



The house of the Vizier Nekht.
View looking along line of doors from the side entrance (30) to 22.

have been the case, and in the village we found part of a stone column-shaft (stone is a rare exception; the columns were almost always of wood) painted red all over. But in house N. 50/15 we found fragments of the mud plaster from round a wooden shaft decorated in bright colours, red, blue, white and yellow, with the conventional petal and circle patterns which appear on the walls and even on the frescoed pavements: we can therefore conclude that there was no definite rule, and that columns were painted as the fancy of the particular householder might dictate.

Cupboards had already been noted by our German predecessors, but only in regard to one room: now we have them as a common feature of all the storerooms of a big house. A small point is the rounded top of the baluster wall of the staircase in house K. 51/1; from its presence here we can probably deduce that the wall of the front steps outside the house was similarly finished off.

For the restoration of the internal decoration, the most important discovery has been that of the niches with pictures on their back walls in Nekht's house and in M. 50/16. Hitherto it was only known that these niches which occur in all houses of any size, generally in the north loggia and in the central hall, bore inscriptions on the vertical sides of the frame while the recessed centre was plain red with, at most, a yellow panel down the middle. This would give the appearance of a door, and it is as a false door that Dr Borchardt restores such a niche in General Ra'-mose's central hall. We now find that the niche represents not a door but a stela set in a brick frame. In the Vizier's house the actual painting was preserved in one case only, in the north niche of the west loggia, which was standing to a greater height than the rest; the yellow panel went down to the ground and at 1.50 metres above floor level were the feet of the king represented as adoring the cartouches of the Aten; there can be no doubt that the other niches in the house, in all of which the lower part of the central yellow panel remained, were similarly decorated. In M. 50/16, a small house, the feet of the figures, which with a little drapery and the legs of a throne, were all that survived, came only 0.90 metre above floor level; the top of the picture was at 1.35 metres above the floor, and over this was a design of some sort; there remained no evidence as to the total original height of the niche. In front of the south niche in the west loggia of the Vizier's house there were found fragments of inscribed plaster which must have come from above the figured panel; they are from a hymn to the Aten written in vertical columns; there is no trace of this up to the height of 1.30 metres, to which the yellow ground was preserved, so that they belong above the picture of the king, and imply that the niche was at least two metres high. In front of this niche, against the centre, there was a small empty vase buried up to its rim in the floor. Clearly the niches were not merely decorative, but religious in their character, and this vase must have been a receptacle for offerings.

III. THE RIVER TEMPLE, AND THE MYCENEAN SHERDS.

Our attention was drawn to the site by stories emanating from Hagg Qandil of two inscribed door-jambs having been found some years ago in a sand-hill just south-west of the village: one of them had been sold to a dealer, one sent to the Cairo Museum, but the carved lintel was said to be still lying fallen under the sand. The tale was so circumstantial that I employed a few men for half a day testing the ground; they did not find the lintel, but chips of limestone, quantities of mud brick bearing traces of blue paint, and a Cypriote

pot-sherd, showed that there was here a building which might be of interest. The villagers then told me of stone columns buried under the north end of the same mound, and explained that these had once been exposed by the German excavators in the course of an experimental dig. With this information it was easy to identify the site with that briefly described by Professor Borchardt in *M.D.O.G.*, 50 (1912), p. 8, as "the remains of a large Egyptian building in the construction of which there were used not only material from private houses of the time of Amenophis IV, but also stones out of what was clearly a temple or palace of the later Ramesside period."

Seeing how important a later occupation of Akhetaten would be for its bearing on the question of Aegaeon chronology, the mention of Ramesside remains seemed amply to warrant a more thorough investigation of the site. The mound is that on which the south half of the modern village is built: the only part available for excavation was a strip lying between the house walls and the cultivation; it was dotted with palm-trees and on it were two sheikhs' tombs, one well preserved upon its north-east limit, one in ruins in the middle of the site: but fortunately our relations with the villagers were sufficiently good to smooth away all difficulties, and even the exposure of the worthy sheikh's bones raised not the slightest demur. But it was not an ideal site.

We started on December 10th by re-clearing the northern area already dug by the Germans but buried again under some three metres of wind-borne sand, intending to work south towards the promised lintel. As however the north end proved disappointing, and further progress was barred by a belt of palm-trees whose removal would have been an expensive matter, on December 17th all the men were shifted to the south end, in order that this area might be explored independently, and the palms destroyed and the two sites joined up only if results seemed likely to make this worth while. This not being the case, work was stopped altogether on December 31st. Our plan is therefore quite incomplete,—necessarily so, for part of the building has been destroyed by a modern *sakya*, part by cultivation, and a great deal of it was covered by the village and the sheikhs' tombs; but even of the comparatively free area not all was excavated, and no junction was ever effected between the two sections that were cleared. The reason for this was that hardly any objects of importance were obtained from what was a very laborious piece of digging, nor was there likelihood of obtaining any by carrying the work further; but on the other hand we had, before closing down, secured just that historical information the hope of which had induced us to begin.

Our excavations represent a relatively small part of a large building of which the north (and more important) end lies under the modern village, and the whole of the west side has been destroyed by the cultivation: our plan shows only the south end of the east side, and probably does not even extend to the axis of the building. From this mere patch it was not easy to get an idea of the original character of the site, and there was little to help us apart from the ruins themselves. Needless to say, we did not find the sculptured lintel promised us by the villagers; but we did find the threshold which they had mistaken for a lintel at the precise spot whence they had said that the door-jambs were removed, and it was evident that these had been of stone.

In front of the door whose jambs had so unluckily disappeared, and in six of the other rooms here in the south, we found, lying on the lowest floor-level, chips and fragments of inscribed limestone, all of the Akhenaten period. Fragmentary though the inscriptions were, it can safely be said that they were not of the sort which experience shows us would

be found in a private house. Moreover the plan of the place, though so incomplete, is clearly quite unlike the stereotyped house-plans of Akhetaten; many of the rooms were mere cellars, opening only from above, and a large part of the complex is really basement supporting a platform on which the main building stood. The building may have been a palace; it is far more likely to have been a temple.

One chamber with columns and altar *in situ* (Pl. XII), was a shrine in the latest period of the building; but as its walls were of the time of Akhenaten (the stone-work was not), it may possibly have been from its origin a side-chapel of a larger temple, and this is made more probable by the fact that whereas its floor remained virtually at the XVIIIth Dynasty level, the floors of the rooms to the south and east contemporary with the last phase of the shrine chamber had risen above that level by a metre or even a metre and a half; these rooms were presumably priests' quarters and store-rooms, and as such would be more often pulled down and rebuilt, their floors rising in the process, while the shrine being permanent would, as Herodotos remarked, be left in a hollow.

That the brick walls were of the Akhenaten period was shown in the north section by the XVIIIth Dynasty pottery found on the lowest floor-level associated with them, and in the south by the inscriptional evidence. These walls in some cases remained in use throughout the whole occupation of the site, in others they were destroyed or buried and new walls were erected on the upper floor-levels, these again either falling out of use in their turn or serving the needs of later occupants in remodelled quarters. The date of these later buildings (not their character) was what gave to the site its chief interest.

The shrine in its final form consisted of a small (original) mud-brick court with two columns and, against the back wall, a large stone-paved altar approached by a flight of stone steps. When first found the columns had been encased in rough masonry (*M. D. O. G.*, 50, Fig. 3), but this has since disappeared: the shafts were in three pieces (the top drum missing), giving a total height of perhaps three and a half metres; they were only roughly worked, and obviously were intended to receive a coating of plaster; the capitals, judging from one found by the Germans at the south limit of their work¹ and by two small fragments found by ourselves, were unusually splayed examples of palm-leaf type; the two bases were not a pair, that on the east being a well-made base of regular XVIIIth Dynasty type, while the other was a rough disk of totally different workmanship and date. In the middle of the paving of the altar-top there was a large limestone block bearing a much-damaged cartouche of Rameses III: it was presumably this stone that prompted the Germans to describe the shrine as rebuilt with fragments of a late Ramesside temple or palace.

That description is of course exact, but it would be rash to argue from the presence of a single portable block (it measures 1.10 × 0.40 × 0.20 metres) that there was ever a Ramesside building in the neighbourhood: stones were freely transported from one site to another,—as, *e.g.*, Horemheb carried off to Thebes a vast quantity of worked stones from Akhetaten itself,—and this block, if it gave us no further information, might just as well have come from any other place along the river as from Tell el-Amarna. Fortunately however it does not bear the cartouche alone; the deeply cut but half-obliterated Rameses inscription is itself a palimpsest, and beneath it can be traced faint signs of an Aten text. This clinches the matter. The Aten text makes the stone a native of Akhetaten, and to imagine that it was carried off to be used in a Ramesside temple elsewhere and that that temple was destroyed and used as a quarry and this particular stone was brought back by some

¹ We have only native report for the provenance, the capital not having been published by its finders.

later builder to its original home, is to push coincidence too far; and we are driven to the conclusion that the Rameses III temple was at Tell el-Amarna, and probably on the site of the Akhenaten temple and of the later chapel which it helped to build.

There was no inscriptional material for dating the shrine in whose altar the dishonoured monument of Rameses found itself laid side by side with sculptured blocks from Akhenaten's older building: for this we had to depend on less direct evidence. In the rooms lying east of the shrine three principal floor-levels corresponding to three occupation-periods were easily to be distinguished. At the south end of the mound, in spite of subsidiary alterations, there were equally evident the same three main periods, which it was natural to associate with the three given us by the shrine itself. In one room a square basement chamber of the Akhenaten building had been in the next period turned into a circular granary, in the construction of which part of the old walls had been cut away; later the granary in its turn fell into disuse and disrepair, and over its ruins there formed a rubbish-heap of broken pots thrown out from the neighbouring rooms: all the sherds in this heap that could be dated at all were of definitely XXVIth Dynasty types.

Now nothing corresponding to this has as yet been found in the eastern part of the city site, where most excavation has been done; but in the "grave-diggers'" village we came upon two plundered coffins of, approximately, the XXIIIrd Dynasty. There was nothing to explain their presence, but the tombs from which they had been carried cannot have been far from the village, and were probably some of those late tombs which the Germans dug in the next valley. This is no proof of their belonging to people living close to the village, or even in the Tell el-Amarna neighbourhood; at the present day the cemeteries that stretch between Hagg Qandil and Hawata are largely used by quite distant villages on the far bank of the Nile. The same might be said of the XXth(?) Dynasty coffin found in house P. 47. 5 (*M.D.O.G.*, 52, pp. 8-9), but the argument must not be pushed too far, and the Germans also report the discovery, apparently in the same neighbourhood, of stelae of the late New Empire, which could hardly be explained away in the same manner. We have in the Hagg Qandil temple definite evidence of occupation both in the XXth and in the XXVIth Dynasties, and, especially in view of these other hitherto disconnected finds, it is but reasonable to suppose that the occupation was continuous.

When then did it begin? In the southern excavated area there are in two rooms large stone column-bases which seem to be in position but certainly do not belong to the building in which they occur; they do not align with the walls, and one base lies not in the centre but in the corner of the room and the wall actually runs over the edge of the stone and must have been built when the latter was already there and already disused. The walls are of Akhenaten's time, and the column-bases are certainly older than the walls; but it is impossible to say by how much they are older: great changes can take place even within the short space of twenty-five years, and we are by no means prepared to affirm that we have here proof of pre-Akhenaten buildings. The discovery in another room of a Tutmosis III scarab does not help us; the object was found well above floor-level, it is portable and durable, of the sort that can never be considered to give good evidence for a building, and scarabs of this particular king were commonly used—and manufactured—very many years after his death. All we can say is that the necessary priority in time of the column-bases to the walls, and the existence therefore on the site of a building older than one which we know to be of Akhenaten's date, must be taken into consideration. Akhenaten's own claim to have founded his new city in an absolutely clean spot has been discussed by Dr Borchardt

(*M.D.O.G.*, 50, p. 9) and by Professor Peet (*Journ. Egypt. Arch.*, VII, 172 *et seqq.*), in the light of their discoveries made chiefly in the eastern houses of the town, and neither has been able to settle the question. We have not settled it either, but personally I am of opinion that no evidence of real value bearing on the point is likely to be forthcoming from the inland quarter of the city area; if there was an earlier settlement it was probably a small one and almost certainly close to the river: only when Akhenaten made the place his capital did the builder encroach far on the desert, and only excavations in or near the cultivation will throw light on an earlier history of the site.

The same is true of its later history. There is no doubt at all that when Tut-ankhamûn shifted the seat of government back to Thebes Akhetaten fell into decay: all the nobles and the wealthy people left, the artisans finding their occupation gone followed them, and only *fellâhîn* would remain behind to till the fertile river-banks. One cannot suppose detestation for the heretic city to have been so strong as to cause good land to be left uncultivated in a country where good land is so scarce. There must have been a permanent agricultural population, but they would live not in houses far inland but close to their work, probably on the sites of the present villages of Et-Till, Hagg Qandil, El-Amaria and Hawata; in time they would require temples, if only to witness to their reversion to orthodoxy, and it is really not surprising to find that our Hagg Qandil temple, once consecrated to the Aten, remained in use under succeeding dynasties as a shrine of the conventional cult.

If I have laboured the point of the later occupation of Tell el-Amarna, it is because of its bearing on the vexed question of Aegaeon chronology. Professor Peet in the *Journal of Egyptian Archaeology* (*loc. cit.*, 183 *et seqq.*) has given an admirable summary of the grounds for and against making the L. M. IIIb. sherds found at Tell el-Amarna contemporary with Akhenaten. Since he wrote, we have obtained much stronger if not conclusive evidence for continued occupation, but this by itself does not solve the question. In the Hagg Qandil ruins there was found very little pottery definitely associated with the Akhenaten period, and it included no Mycenaean sherds: the same was true of the second (Ramesside) period. One piece of Cypriote ware of the early iron age was found in the filling of room 4; several Cypriote fragments fitting together into parts of three recognisable vases came from room 8, but all the native pottery here was of the XXVIth Dynasty and the Cypriote examples were of the well-developed iron-age type ("Graeco-Phoenician") which agrees with that date. The precinct of the Southern Pool and its rubbish-heaps produced nothing Aegaeon. The "grave-diggers'" village, the date of which is well fixed, yielded one piece of a Cypriote "ladder pattern" bowl, but no Mycenaean fragments. Professor Petrie's great haul of Aegaeon sherds came from the rubbish-heaps of the northern palace; only three were from private houses. The Germans found "a few bits every season." Professor Peet excavated a large area in the southern part of the city and found only four Mycenaean potsherds. We dug five houses at the extreme south end of the city and found none. When we moved northwards and dug alongside the German work in sqq. O. 47 and P. 46, 47, i.e. in the middle of the area between desert and sown and more towards the palace site, close to where the Germans found their late coffin and probably not far from where they found late XVIIIth Dynasty stelae, we collected 10 L. M. IIIb. sherds from eight out of the 24 houses dug. Now there was no sign whatever of later occupation of this area, and there was nothing in the position of the fragments to suggest that they were a later intrusion,—though as the *sabbâkhîn* have only too often destroyed all stratification this negative evidence has little value,—and the obvious conclusion is that the sherds are contemporary

with the houses. But a caveat should be entered against the assumption that this is necessarily the case. Professor Petrie estimates that the 1500 sherds found by him came from nearly 800 pots, a pot being on the average represented by not more than two pieces; and it must be remembered that many bits that did join might well have been broken apart when or after they were thrown on the waste-heap: of course none but broken pots were thrown away, and pieces of them may easily have been left behind, but even so the proportion is a remarkable one. Now in the filling of every house and of every room there are masses of pottery fragments. In spite of all precautions some bits are inevitably thrown away with the rubbish, but if the sherds from a room, and certainly if the sherds from a whole house, be collected and examined, while it may not be possible to build up complete pots (that happens seldom), yet most of the pieces can be grouped either as fitting together to form larger fragments or at the least as belonging to the same pot; there are comparatively few quite isolated sherds. But of the Mycenaean fragments which we have found the three from one house (P. 46. 15) may possibly derive from the same vase, but all the rest—and the same is true of Professor Peet's examples—are quite isolated, stray little bits of vessels of which the remaining parts have entirely disappeared. One cannot suppose that whenever a Mycenaean vase was broken all the fragments except one were carefully removed and distributed, two on the rubbish-heaps and the rest elsewhere, while the broken native wares were either all carried off or all left lying; to me at least the Mycenaean sherds have the appearance of having been dropped as broken pieces, not of having been broken off from dropped pots. Of course when Akhetaten ceased to be inhabited it was not left without visitors; the bricked-up houses must have been plundered first of their furniture and valuables, then of their woodwork and finally of their stone,—not only were the temples and palaces used as quarries, but from the private houses the stone seats and the column-bases have as often as not been removed, so that quite apart from the permanent population down by the river-bank there must have been plenty of people busy in the deserted town long before *sabakh*-digging became the practice: but even so it is not easy to explain single Mycenaean sherds being scattered here and there over the site, and still harder to dissociate the rubbish-heap fragments from the numerous dated objects found with them. But I can conceive of no reason at all why, if L. M. III b. vases were really in use at Akhetaten, they are represented to-day by single sherds only whereas of the Egyptian wares we can generally gather fragments enough to build up a third or more of the entire pot. Nothing can fairly be argued from the fact of this pottery being found at Tell el-Amarna unless the conditions in which it is found be taken into consideration also, and though nothing has been proved as yet, the conditions seem to me to go far towards invalidating the conclusion which would follow from the fact alone. Proof can only come from further excavation.

IV. MARU-ATEN OR THE PRECINCT OF THE SOUTHERN POOL.

The Name.

The original name of this site would seem to be Maru-Aten, "the Precinct of Aten," a phrase which recurs often on the inscriptions found here. What exactly this means, and why it should describe the peculiar collection of buildings which we found, is not very clear, and it appeared desirable to select a name rather more applicable to the character of the place. The discovery on one of the wine-jars from the "harim" of the phrase "The Southern Pool" used as a proper name gave us just what was wanted to describe a place lying right at the south end of the Amarna valley and possessing as its most striking feature a large



Small shrine in River Temple.
In the middle of the late altar is seen the stone with the
palimpsest Ramesside cartouche.



The Hall of Audience.
Building IV, Maru-Ateu.

artificial lake; there are no archaeological grounds for connecting the name on the potsherd with the ruins, but its suitability was too obvious to be passed over, and we were quick to adopt it as a label, while keeping the more correct word "precinct" to define a complex for which it was difficult to find any other noun sufficiently non-committal.

The Situation.

The site lies behind and a little north of the modern village of Hawaṭa, which is built over the ruins of houses of Akhenaten's time; for a long distance north of it the desert shows no signs of former buildings, and if such existed in the cultivation all trace of them has disappeared, so that one must assume that the Hawaṭa ruins represent a quarter of the city of Akhetaten which was quite distinct from the part of the town that stretches from Et-Till to the south end of Hagg Qandil; but it was a quarter rather than a separate town, and as the high-set village of Ameria undoubtedly conceals old remains the distance separating the different parts may not have been so great as it seems to-day. It should be remembered that there are extensive ruins well to the north of Et-Till which again, though not directly connected with the central portion of the city, are yet not wholly disconnected from it, seeing that there are several isolated buildings and groups of buildings scattered between the main sites; it would appear that across the entire amphitheatre of flat land which lies within the boundaries marked out by Akhenaten's stelae one great town straggled along the fringe between desert and cultivated river-bank, and though the early discovery of a temple and palace in the centre of the arc has so focussed our attention on that quarter as to make it seem for us the city proper, of which all out-lying parts must be merely suburbs, yet this impression may quite possibly be based on erroneous and over-hasty judgments, and we may yet find that the extremities of the long and narrow strip were just as important and as rich as the middle of it.

Bibliography.

Our Hawaṭa site seems to have escaped the notice of Professor Petrie, as it does not appear on his general map of the Amarna district published in 1894. Attention was first drawn to it in 1896, when M. Barsanti excavated here and removed some panels of frescoed pavement, of which the majority are now in the Cairo museum and others in Berlin; M. Barsanti did not publish any report of the work done by him, and the account of the technique of the frescoes given by von Bissing and Reach (*Annales du Service*, VII, p. 65) records the fact of their coming from a palace of Amenophis IV at Hawaṭa without describing further the circumstances of their discovery. Baedeker (1902 edition) refers to an entirely destroyed palace of Amenophis IV at el-Hawaṭa. N. de G. Davies (*E. E. F. Tell el Amarna*, II, 1905) inserts on his copy of Petrie's plan (Pl. I) a note of a "small painted pavement" having been found north of Hawaṭa. Timme in his survey (*Tell el-Amarna vor der deutschen Ausgrabung*, 1911) marks the site as "Palastruinen" and on p. 23 describes it briefly as a rectangular ruin-field and illustrates one of the Berlin frescoes secured from it by Barsanti; he further notes the four high sand-hills which lie in a row south-west of the site, remarking that while they are certainly artificial there is nothing to explain their origin. In 1907 the Germans dug on the site for the short space of one rainy day, and their experiment seemed to them to prove (*Mitth. D. O. G.* 34, p. 28) that the palace walls were still preserved to a man's height and that its plan could therefore be recovered with certainty, and that the sand-hills referred to by Timme were the broken remains of an ancient dam or retaining-wall for an artificial lake.

Excavation.

When the Egypt Exploration Society started work here on November 18, 1921, the site looked far from promising. The rectangular enclosure was indeed quite clearly defined by the ruins of its outer wall, but only in one place, and there only for a short distance, did a mound of any height give promise of the wall being well preserved; for the rest, a trench with a low bank of broken brick and sand on either side of it showed where the *sabdkh* diggers had rooted out what time otherwise had spared. At the west end of the rectangle more disturbed ground marked the place where interior walls had been dug out for *sabdkh*; in its north-east corner the broken surface littered with fragments of painted cement paving showed where Barsanti had worked; to the south of this, a large and roughly square patch of ground in which the soil was almost wholly composed of stone chippings was obviously the site of a masonry building all the material from which had been removed in antiquity; the whole of the central part of the enclosure was a low-lying stretch of absolutely level soil, free of all signs of ancient remains, but cut up into squares by the mud partitions and ditches of modern cultivation. The line of mounds to the south-west was more instructive than the site itself; these were clearly not parts of a dam, but spoil-heaps thrown up while digging a canal or lake in the desert surface; and connecting them with the rectangle of low ground in the centre of the enclosure we were able to identify this as a lake surrounded by buildings and a boundary wall, a conjecture which excavation amply confirmed.

As work went on, the estimate of the site based on the result of the German's one-day experiment proved to be rather too optimistic. Only towards the south-east, where the walls of the two enclosures met, was the building preserved to any height. Everywhere else the *sabdkhîn* had done their worst, and though here and there a wall-fragment might stand 0.60 metre high, it would soon break down to nothing at all, and a trench full of more or less clean sand running along a broken pavement edge, or simply a trench, was all from which a brick wall could be inferred. The stone buildings had suffered even more severely, and in none was a single stone ever found *in situ*; all we had to go upon was the layer of cement spread over the surface of the sand to take the lowest course of masonry. The ancient Egyptian workman who carried off the stones of the heretic king's palace to re-use them in some more orthodox monument elsewhere, and the modern peasant rooting up mud-brick to manure his fields, had both done their work so thoroughly as to leave to the archaeological digger no more than the barest evidence of what they had destroyed. It is eloquent of the condition of the site that in two cases at least the limits of a building could only be fixed by the trees that had once grown in the garden outside; and it is a curious commentary on the relative permanence of things that under a few centimetres of desert sand we could find trees and plan the mud borders of the flower-beds where of massive walls there remained not the slightest trace.

The Site. (See Plan, Pl. XV.)

The site consists of two rectangular enclosures, one double the size of the other, containing lakes, gardens and buildings. Properly speaking it is not a palace, because it is not a residence, but a royal pleasure resort, a "paradise" in which the buildings, important as they may be, are yet scarcely more than accessories to the water and the flowers. One of the buildings is a temple, one a summer-house, another either a harim or a hall of audience or a combination of the two; there are the houses of humble employees and there is a magnificent entrance-hall, but there is no place where a king and his court could live. One can

but suppose that Akhenaten resided in a palace in the central or northern part of the town, presumably in that discovered by Petrie, and that to this pavilioned garden he would come to spend high days or holidays, either being rowed in his barge up the Nile or driving his chariot, as the tomb reliefs often show him driving, along the broad road which ran through Akhetaten north by south and is now called by the villagers of Hagg Qandil the King's Highway, "Sikket es-Sultân."

The Enceinte Wall.

The two enclosures lay side by side, with their longer axes roughly east and west. The northern measured some two hundred metres by one hundred and the smaller about one hundred and sixty metres by eighty; a mud-brick wall, buttressed on the outer side along its entire length, surrounded the whole Precinct and separated its two component parts.

This wall had been so terribly ruined by the *sabâkh*-diggers that little could be learned as to its character. In many places even its foundations had been removed, though the builders had laid them a good half metre below the original surface of the desert, and it was thus impossible to say whether or no there had been gateways in it; one certainly suspected such in the middle of the east wall of the southern garden, where two large sand-filled pits projecting from the wall line might well mark the emplacement of gate-towers removed bodily by the *sabbâkhîn*, and at this point too there was no single brick left of the wall itself; but if a gate is here inserted on our plan it is only by conjecture. In the northern enclosure again there may have been a gate in the eastern wall, which in many places is too much ruined to allow of proof one way or the other, but there was certainly none in the other three walls except the small door on the south opening into the southern garden just behind the great court of entry; and though this may seem, and is, but an insignificant approach to so luxurious a place, yet for once privacy may well have been preferred to display, and we would not suggest a second entry, for which there was no evidence at all in fact.

In the south-east corner of the southern garden there were found close up against the footings fragments of coloured plaster which, as there was no interior building here, or at least none more important than a potting-shed, must have fallen from the wall itself. If so, we may imagine that the whole inner face of the enceinte wall was brightly painted with naturalistic designs in which trailing vines with purple clusters played a leading part while above them, separated by bands of black and yellow, was a cavetto cornice decorated in the conventional way with vertical petals of red, blue, green and white. The evidence for the character of the wall is indeed scanty, but it is if anything more than one would have expected to obtain from a building in so ruined a condition, and considering that for a large part of the circuit the very bricks had entirely disappeared it is less rash than it might seem to reconstruct a decorated wall from a few bits of coloured plaster found in one corner only.

The Entrance Hall.

The main, if not the only, entrance to the Precinct, lay at the west end of the southern enclosure, where there was a large stone building standing directly on the high road. This was found to be in a greatly ruined state, and it was only from the marks left by the masonry blocks on the bed of cement which served as a foundation that we were able to recover the plan; fortunately however there were a number of stone fragments, column-drums and capitals, overlooked by the workmen who carried off the building material for re-use elsewhere, which were of great assistance as illustrating the character and ornamentation of the building.

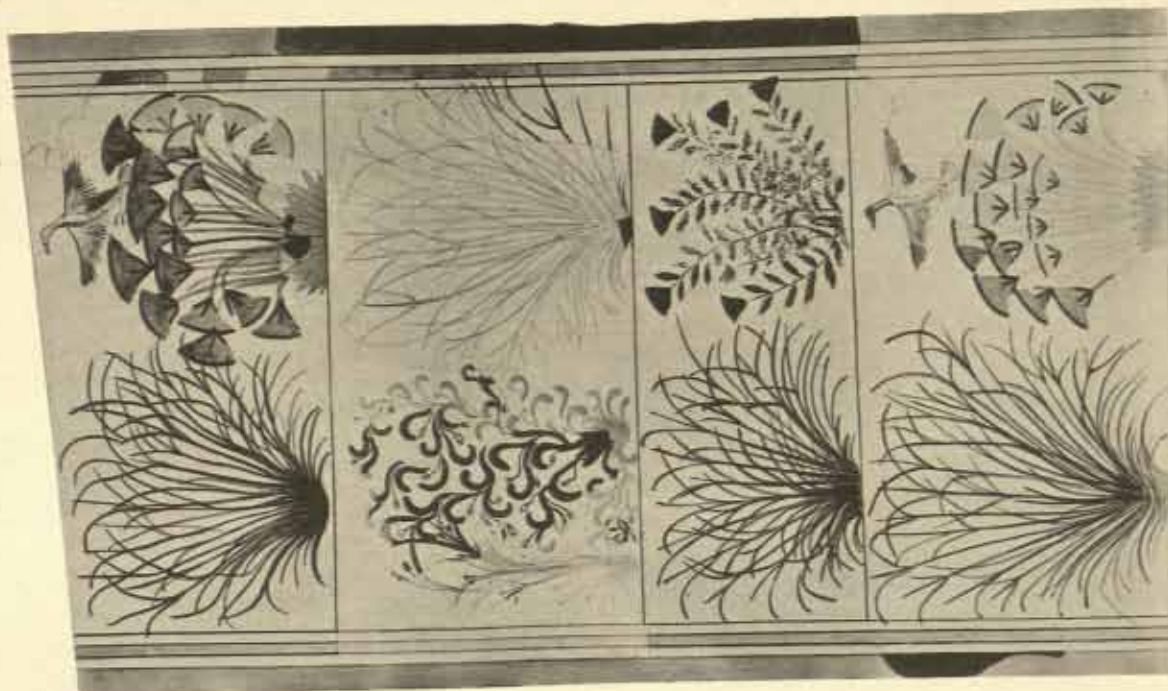
The entrance-hall proper (VIII in Pl. XV) was a large court containing four rows of columns, nine columns to a row. Judging from fragments, these were adorned with scenes of the king and his family engaged in the worship of the Aten; on the walls were reliefs showing the king going in procession or receiving tribute, stock subjects which we find constantly on the walls of the tombs. The column capitals were in limestone, of the palm-leaf type, the surface of the leaves being cut into cloisons (as if to give the veining) which were filled with coloured paste. This is a cheap imitation of the splendid capitals which adorned the Northern Palace (*v.* PETRIE, *Tell el Amarna*, Pl. VI) where the inlay was in faience and the edges of the stone cloisons were gilded; here a soft paste was used and the stone was but painted yellow. All through this building there was a lavish employment of paint to conceal a real poverty of material and slovenly workmanship; apart from one fragment of a red granite statue, all the rest was of limestone or the poorest quality of sandstone, and nowhere did we find traces of the elaborate inlay which enriched the sculptures and inscriptions of the little temple in the northern enclosure; only bright colour redeemed the rough cutting of hieroglyphs and uraeus cornices.

To the north of the main entrance-hall there lay a smaller columned court; to the south of it, a small central room with no columns, at the back of which there seems to have been a throne or altar; east of this was a long court with a double row of columns supporting its roof, and behind it a little chamber reached from the central court by a passage running along the western wall of the whole building. Where even the ground-plan could be recovered only with difficulty, it was impossible to find evidence for the character and use of the different elements of the building; its position shows that it was the entry to the Precinct as a whole, and the central hall, which probably had a door in its east wall opening on to the garden, seems to have been the entry proper: but for the rest we can venture no hypothesis.

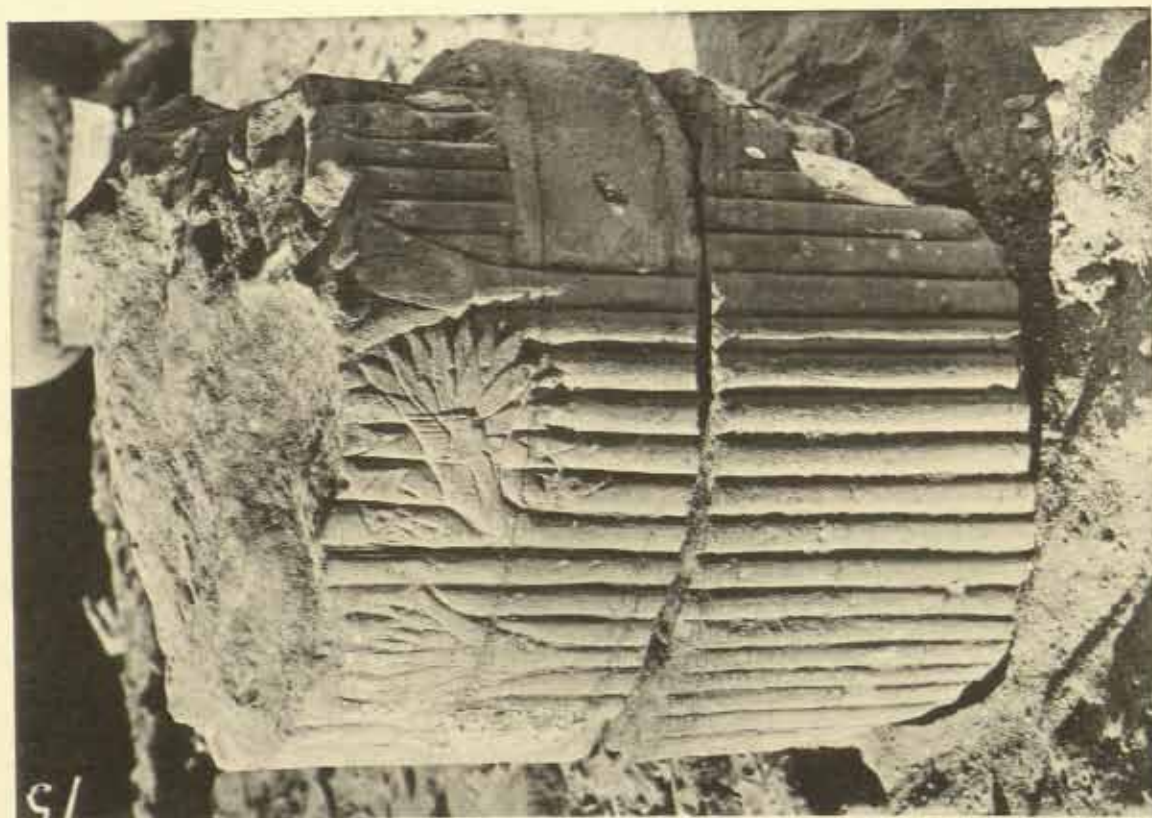
The South Garden.

Immediately behind the hall of entry lay a small lake, and on either side of and behind this stretched garden ground planted with trees and shrubs. The only other buildings in the enclosure were two houses at the extreme east end close to where a break in the line of the outer wall suggests a gateway opening on to the desert; one of these was a house of moderate size and apparently of more or less normal type, though it was so badly ruined, as well as being complicated by alterations or rebuilding, that the plan was not easy to make out; its main feature was a central court with columns; the other was a workman's cottage (Nos. VII, A and B on Pl. XV). In the rest of the enclosure no more digging was done than sufficed to prove the general character of the place, and as soon as trees had been found on the higher ground surrounding the rectangular depression which experience in the northern enclosure had already shown must represent a lake, work was stopped.

The only entrance to the northern enclosure was by a rather small door in the dividing wall, just beyond the hall of entry; from the main road one passed through the great columned hall and turning to the left found oneself in front of the gate to the more private and, as its buildings showed it to be, the more important section of the Precinct. But since the great entry was intended for royal ceremonial, there was also, between the north side of the court and the wall dividing the two gardens, a narrow lane ending in a small doorway giving on to the road; coming in by this, one arrived unostentatiously at the same gate to the north garden as faced the visitors using the state entry.



Examples of frescoed pavement, Maru-Aten I.
(after a coloured drawing by F. G. Newton).



Fragment of sandstone column from the Kiosk, Maru-Aten II.

The Northern Enclosure.

The Western Range. VI on Pl. XV. All along the west wall lay a row of small houses which can only have been those of the workpeople employed on the Precinct. Those to the north were constructed with a solidity unusual in houses of the type, while on the contrary those to the south were, judging from the scanty ruins of them that survived, more than usually flimsy. The northern houses of the row differed from the workmen's dwellings of our valley site, and also from those found by the German excavators in the main city (*D. O. G.* 34 (1907), p. 20), by having alongside of each a narrow yard with outbuildings; in two of these we found dead cows and in one room there were nine dead dogs; it would almost seem that there was here a sort of home farm run for the benefit of those using the pleasure-gardens, and one thinks of syllabub! Apart from the animal remains there was nothing remarkable about these houses.

The whole of this utilitarian quarter was discreetly hidden from the gardens by a long wall, and for part of the way by two parallel walls enclosing a road which must have afforded access to the garden through a door at its north end, and to the quay, while it also served the needs of a building which, backed against it, projected forward into the garden and reached nearly to the lake's edge. This building again is of the type of workman's cottage, boasting only the minimum of four rooms, but its solid walls and its columned mandarah set it in a class apart from those familiar to us from other parts of the Amarna site; it is certainly of a domestic character, and one can only surmise, from its superior style and its isolated position in the garden itself, that it was the house of the overseer of the king's gardeners employed in Maru-Aten. Nothing was found in it to confirm any such supposition.

The Lake and Garden.

The greater part of the northern enclosure was taken up by a rectangular lake, some 120 metres long by 60 metres wide and about a metre deep, its sloping gravel sides lightly puddled with Nile mud. It is from this lake, and from the smaller one in the south enclosure, that all the stuff came which forms the line of great spoil-heaps standing up south-west of the site. A lake such as this, however useful for irrigation purposes, must have been intended mainly for an ornamental feature of the garden and for the amusement of the garden's frequenters; it has of course its precedent in the artificial lake which adorned Amenophis III's palace at Thebes, and is but a very much enlarged edition of the garden pools with trees about their margin which were common in the country houses of the XVIIIth Dynasty nobles. Ample deep enough for the light, painted pleasure-craft of the Egyptians, and shallow enough to have no dangers for the least skilful wet-bob in the royal *harîm*, this lake must often have been the scene of such gay picnic parties as we see illustrated on the walls of many New Empire tombs.

The Quay.

From the wall screening the western range of the employees' houses a long stone quay or causeway ran out over the low garden ground and projected into the water. It had a low breast-wall on either side and at its end a small building, probably in the shape of an ornamental gate, decorated with painted reliefs; from the fragments of this, we could identify scenes of Aten worship, of running soldiers and foreign captives, probably both from a tribute scene, boating pictures, and, on a much smaller scale, one of the perspective plans of palace or temple such as are common in the tombs; with these went reeded columns with

palm-leaf capitals, a palmette frieze on a cavetto cornice, and the inevitable frieze of uraeus snakes. From a doorway a flight of steps seems to have led down to the water, and half-way along the quay other steps went down to the flat garden ground on the west border of the lake.

Garden.

All round the lake stretched the garden. Wherever we dug we found just below the surface either the straight mud ridges which divide flower- or vegetable-beds and cut them into compartments for irrigation, or else the remains of trees. As there is little nourishment in the desert soil, a hole was dug down and filled with imported earth; this earth was mounded up and round it was built or plastered a mud wall, circular and rising like a flower-pot to a height of anything up to sixty centimetres (according to the size of the tree) and rounded off at the top into a neat coping: these mud tubs are still regularly used in Egypt, and, represented in section, they appear in ancient Egyptian drawings of trees, e.g. in one of the pavements from the Water Court; in DAVIES, *Tell el Amarna*, I, Pl. XXXII (tomb of Meryra) there is a garden full of such, having not a little in common with the Precinct of the Southern Pool.

Building III.

Scattered amongst the trees and flower-beds were three other buildings or groups of buildings. One of these, lying against the south wall of the enclosure, was a house of mud brick forming three sides of a square, a ground-plan unusual in Akhetaten. It was unfortunately much ruined; the southern rooms, of which alone the walls were tolerably well preserved, showed by their well-cut stone thresholds and remains of painted plaster that they had been of some consequence: of the two projecting wings only the cellarage remained, and that in so ruinous a state that even the plan could not be made out with certainty, but over the cellars, on a level two or three steps above that of the southern chambers, there must have been large and pleasant loggias looking out over garden and lake. In the quadrangle between the wings there was a small square tank where once the lotus and papyrus grew; the impressions of their stalks and leaves were innumerable in the light water-laid mud which overlay the thick bed of heavy soil at the tank's bottom.

The "Harim." IV on Pl. XV.

On the north edge of the lake stood a building of a much more individual type, consisting of three courts one behind the other all flanked by smaller rooms. It was approached from the west by a long walled passage communicating, probably, with the pathway from the quay along the western screen wall. The roof of the front or western court was supported by six stone columns set in two rows, and between them a narrow flight of stairs led to a raised platform (Pl. XII). We were at first inclined to believe that this was a stepped altar like that figured in the tomb of Panehesy (*Tell el Amarna*, II, Pl. XVIII), but an altar would surely have been so placed as to let the ministrant face the rising sun, whereas the platform stands against a solid brick wall behind which lie two more walled courts; it seems therefore more likely that we have here a raised throne in a hall of audience such as is shown in the reliefs of the tomb of Meryra (*Tell el Amarna*, II, Pl. XXXVIII); in the picture there the throne stands on a low dais reached by a flight of steps, and above it is a light canopy or baldachino behind which is seen the sun's disk with its rays ending in human hands; in the ruins, the

dais widens at the top of the steps, making room at its outer angles for the slender shafts that would support a canopy, while the blank wall behind it presents an admirable ground for a painting of the Aten, which to the spectators would appear in the east with its rays descending on and around the person of the king.

A door on the north side of the throne leads into the central peristyle court. Here again we find a quite remarkable feature. The colonnade runs round three sides of the building, the two columns in the middle against the western wall being smaller than those down the sides, but the roof they supported extended only over the corridor, leaving a central hypaethral space where was a little garden laid out with flower-beds; the whole thing was curiously reminiscent of a Pompeian house, with its peristyle garden reduced to the size of the compluvium. A central door led from this to the back court, which had three rows of stone columns.

Of the side rooms, that to the right of the first court is alone of any size; it has at its far end the deep recess with raised floor which in the private houses of the city characterises the "master's bedroom"; here it might well be the king's withdrawing room. The two first chambers on either side of the central court are taken up by broad staircases leading to the upper floor: all the rest of the side rooms are merely cellars. It is obvious that the private rooms of the building were on the upper floor, which as a general rule was reserved for the women's quarters, as in the palace of Rameses II at Medinet Habu; here there would not be space for residential apartments, but there may well have been the private rooms of the royal ladies who figure so prominently at the king's audience, or a kind of harim summer-house for those taking part in the Court excursions; this would be quite consistent with the use of the entrance-hall on the ground floor as a public reception-room. The door of the cellar immediately to the right of the entrance to the back court had been walled up with brick, and as if for greater security a big slab of stone had been set against the face of the blocking wall; the opposite cellar seems to have been similarly closed, for though the brickwork in its doorway had been destroyed a stone slab corresponding to that on the south stood tilted forward just in front of the door and had almost certainly once served to seal it. There was nothing to show why these two cellars had been put out of use,—whether they had contained treasure or whether (as we fondly hoped!) this was some tragedy of the harim,—unless it was that in the northern chamber there was found against the east wall the body of an infant roughly buried there with its toy pots of alabaster, its beads and amulets. About the original contents of the other two chambers on the north side of the back court there was however no doubt at all; their floors were simply covered with broken wine-jars and mud jar-sealings, showing that here were two of those well-stocked cellars that figure in the tomb-drawings of the royal palace; from these two little rooms and from the north-east corner of the court (into which the fragments had overflowed) we recovered over 280 stamped sealings and 130 graffiti. The sealings all bore such labels as "Wine of the house of Akhenaten," "Wine of the Temple (or 'Mansion') of Rê" or "of Sehetep-Rê," "Wine of the Western River" (the Bahr Yûsuf), "of the Southern Pool," "of the Storehouse of Tribute"; it is tempting to see in either of the last two titles allusions to the actual ruins with which we have to deal, but it is by no means permissible to do so. The graffiti give the usual supplementary details about the jars' contents,—the vineyard, the name of the vineyard superintendent, the vintage date, etc., "very good wine." They were certainly no "dry" entertainments that Akhenaten gave in the Precinct of the Southern Pool.

It might be thought that a building which, except for its stone columns and thresholds, is constructed throughout of mud-brick is not dignified enough for the reception-hall or for the harim of a king. The objection is in no sense sound; for mud-brick is the normal material for the richest houses and at Akhetaten was even used for temples; as long as the surface was brightly painted the Egyptian cared little what lay beneath. But in this house, while the cellars were, as one would expect, merely mud-plastered, the rooms proper, i.e. the three columned courts and the south-west chamber, differed from any building yet recorded at Akhetaten in having their walls covered with a cement plaster. A greyish cement was used, of a thickness varying with the uneven surface of the brick wall; over it was spread a very thin coat of fine white cement, and on this was a coloured decoration painted in *tempera*, not in fresco as was the case with the painted pavements. This unique feature is quite enough to justify us in attributing to the "harim" an importance which its size might not seem to warrant; and it must be remembered that in the Precinct most of the buildings are small.

The Water-Court. I on Pl. XV.

Westwards of the *harim*, flower-beds and a grove of trees planted in fairly regular rows stretched up to the wall of a building which occupied the north-east corner of the whole enclosure. This remarkable building was entered by a door set rather to the west of the middle of the south wall; it consisted of one long room, probably not very lofty, with a single row of pillars down the centre and a passage running all round it and across it in front of the door: the middle of the room, within the passage, was taken up by a series of T-shaped tanks, the crosses of the T's being to north and south alternately so that between the arms of each pair there was left a small central square which formed a column-base. The sides of the T's sloped outward from the bottom to meet in a sharp ridge rising some fifty centimetres above floor level, while along the passage they formed a low parapet wall with a vertical outer face; these sloped sides were mud-plastered, and up to floor-level they were painted plain white with narrow yellow bands accentuating the corners, and up to this level they were filled with water: then came a narrow black line and above it, in bright natural colours, low-growing water-plants, water-lilies and lotus-flowers, while above these, near the top of the ridge, there was a trellis-work painted in red, blue and white on the grey mud, and vines with heavy purple clusters and red pomegranates showed up against a yellow background. The painted plants seemed to grow out of the real water, and the tanks with their many angles formed a sort of maze out of which the pillars sprang to support the roof. The same floral designs were repeated on the vertical sides of the parapet bordering the passage, and the cement floor of the passage itself was decorated in a series of frescoed panels (Pl. XIII) with gaily coloured lotuses, rushes, papyri and all manner of flowering plants out of which ducks started in flight or heifers plunged amongst their foliage. Every inch of this building, which was constructed in mud-brick throughout, was covered with a very bright and effective scheme of decoration, but if one examines it in detail one is conscious of a great lack of originality. There is a vast amount of mere repetition;—the pavement artists, though skilful in their brush-work, had a very limited range of subjects, and in nearly every case these were borrowed from the similar pavements in the Northern Palace,—indeed there can be little doubt that the same workmen were employed on the two buildings; the designs on the lowest part of the walls, which alone are tolerably preserved, repeat each other to satiety, and judging from the fragments of the upper designs these were identical with what

we find in the *harim* and even on the enceinte wall of the Precinct itself. Like so much of the work of the period, this betrays a real poverty of imagination and resource going together with great technical facility, a good sense of mass composition and in the treatment of detail a curious alternation between an almost meticulous elaboration and an almost slovenly impressionism; but though there may have been faults in its execution, the general effect of the Water-Court must have been gay in the extreme. It is rather an anticlimax to record that in the bottom of the tanks at the western end we found masses of broken wine-jars with mud sealings and graffiti similar to those from the *harim*, and only a little less numerous.

The Temple and Kiosks. II on Pl. XV.

From the door of the Water-Court a path between flower-beds ran south exactly on the axis-line of an important group of buildings lying east of the lake, the only group in the enclosure with which we have yet to deal; but though this path shows that there was some direct communication between the two buildings, the true approach to the new site was from the south, where an avenue of trees led to a lofty pylon, the doorway of a small temple. The axis of the temple lies from east to west, and the doorway is therefore in the centre of the side wall of the outer court; this disposition, though unusual, is not without precedent at Akhetaten itself, and here is rendered necessary by the fact that the pylon building serves as entry not only to the temple but also to the group of three buildings directly north of it, which were approached by another door through the second pylon. These were surrounded by a moat with flat bottom and sloped sides, once filled with water, and must have been reached by a bridge of which no traces now remain; the central building lay to the north and was a stone version of the kiosks commonly found in the gardens of private houses in the city, and the path to it was flanked by two small summer-houses with open pillared façades.

This whole group of separate but obviously interdependent buildings had been of solid masonry, and a great variety of stones, including many of rarer types, had been used in what must have been a very rich scheme of ornament. Later kings of Egypt had destroyed the work of the heretic and had carried off its material for use elsewhere, and nothing could have been more thorough than the way in which this was done. Before we started digging the site was merely a litter of stone chippings and sand: about forty centimetres below the surface we came on the foundation, a thin bed of cement spread over the sand to receive the masonry; but not a single stone remained in position, and very few of any size had been left behind at all. In the dried-up ditch we hit upon two fragments of capitals and two broken column-drums (Pl. XIII), a piece of a lintel and half-a-dozen sculptured wall-blocks; but for the most part our finds were limited to bits of monuments wilfully smashed up or flakes chipped off when stones bearing obnoxious figures or inscriptions were re-dressed upon the spot. At first we despaired of obtaining any idea at all of the buildings' original form and character, but when the cement foundation was cleared and swept we discovered that the very completeness of the destruction was in our favour.

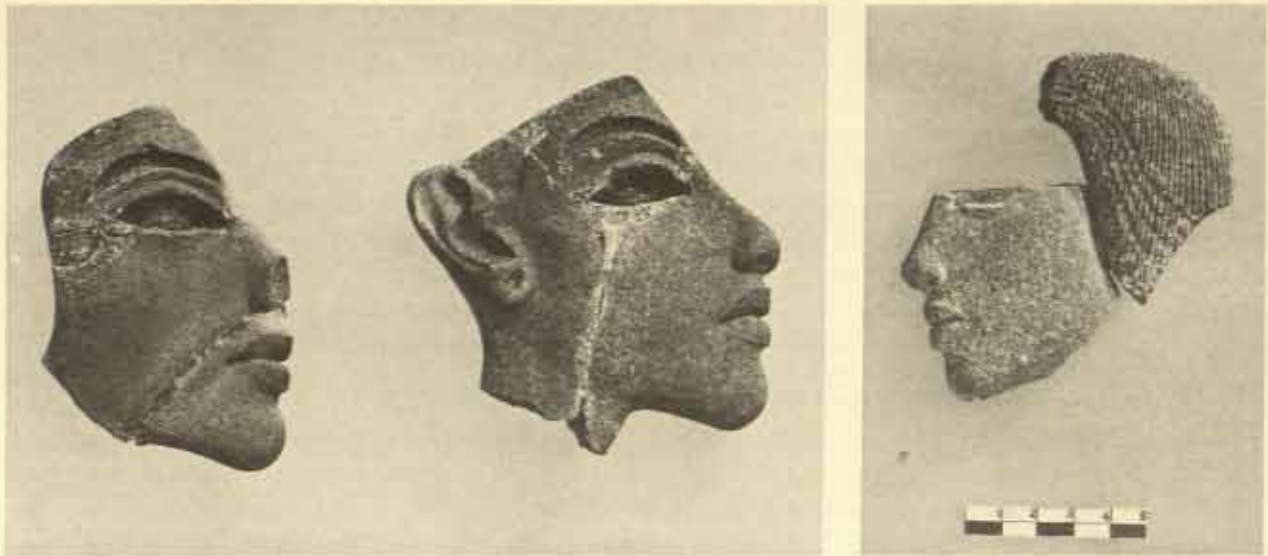
Under the hot Egyptian sun the cement foundation dried before the first courses of masonry could be laid, and for their bedding fresh mortar had to be spread over it; when the house-breaking gang pulled up the stones, either this mortar remained behind, bearing the exact impress of each block, which could therefore be planned in by us as certainly as if we had found it *in situ*; or else the mortar came away with the stone, leaving the founda-

tion bare, and in that case another factor came to our help: for on its smooth surface the Egyptian architect, using a blackened string, had laid down all the lines of his plan for the builders to follow, and these lines, where not covered by mortar, remained visible and sometimes as distinct as on the day when the taut string was lifted and let fall again on the still soft cement.

By planning the position of all the stones of which the marks were visible, and utilising the hints given by the architect's guiding lines, and by a careful study of the few remaining fragments, it was possible to reconstruct with tolerable certainty not only the ground-plan of the four buildings but, in part at least, their elevation. We have then a small temple of normal type with its outer or pylon court, its roof supported by, probably, four columns, leading to a pronaos and beyond that to a little inner shrine with four columns close up against its walls and an altar or throne at its east end. The columns of the outer court were of the type figured by Petrie in his work on the Northern Palace (*Tell el Amarna*, Pl. VII), but even more magnificent; the lower drums were of alabaster with inlaid lotus patterns: the sandstone shafts were reeded in broad and narrow ribs and painted green, while horizontal bands of bright yellow advertised the king's name and titles; above this came wreaths of red grape-clusters and green laurel leaves, and higher still, against a yellow ground, ducks hung head downwards, painted in their natural tints: the capitals were of alabaster adorned with lotus leaves and flowers carved in relief and inlaid with blue and green paste. The lintels over the doors were of alabaster; the walls were covered with reliefs and inscriptions enriched with inlay in coloured stone and faience; a few small fragments of this work only survive, but from the inner shrine we secured the beautiful inlay heads of the king and queen illustrated on Pl. XIV, wherefrom we can gain some idea of the wealth of skill and diversity of material that were lavished on the adornment of this chapel royal.

Of the buildings on the artificial island the two that flank the pathway to the kiosk were exactly similar in ground-plan and probably in form and decoration. Each consisted of a single room with solid back and side walls, the latter ending in pilaster jambs, and the front was formed by two pillars framing the doorway, while between the pillars and the side jambs there were low stone screens with windows above. The inner face of the walls was encrusted with faience tiles on which flowering plants were represented in bright colours; the jambs, and probably the pillars too, were decorated with long-stalked lotus-flowers, and it is tempting to restore in the place of the screens the stelae of red sandstone and of alabaster covered on both sides with inscriptions and inlaid figures (Pl. XIV), of which we found many fragments hereabouts, and capped by cavetto cornices of the same materials inlaid in palm-leaf patterns with coloured pastes. The floors were covered with slabs of stone, probably also alabaster. Round the top of the buildings ran a frieze of brightly painted uraeus snakes bearing on their heads the sacred disk of the sun.

The kiosk stood on a slightly raised platform and was approached by a long flight of very shallow steps with a low coping wall on either side. The building itself was square and possessed no internal features other than a raised base for an altar or throne facing the door; the roof was supported by columns engaged in a high screen wall reaching almost to the top of the shaft and leaving little more than the capitals free. These columns had lotus shafts (Pl. XIII) and spreading palm-leaf capitals, painted green; the inner face of the screens was adorned with conventional reliefs representing scenes of Aten worship, etc., but the outside was covered with naturalistic designs, plants, palm- and acacia-trees, lotus-flowers growing



Inlay heads of Akhenaten and of his queen,
from little temple, Maru-Aten II.



Fragments (a) pink mottled granite, (b, b*) fine red sandstone,
of stelae from the island pavilions, Maru-Aten II.

out of the water, heifers plunging among water-plants, lions and ducks, all clearly intended to harmonise with the out-of-door character of this island site set in a garden. From this building, apparently, came the friezes of uraeus snakes carved in red or yellow sandstone with inlaid heads of black granite and crimson eyes, and perhaps too a black granite stela showing the royal family worshipping the Aten; but the screen wall and the engaged columns were all that we could identify with safety as coming from this particular shrine, and judging from the simplicity of its plan there was but little else to come from it; all that it may have contained of rich ornament on altar, walls or floor, has been sedulously removed, and the spoilers were so anxious to overlook nothing that they tore up the pavement below the altar and dug deep down into the desert sand in search of the treasure it might conceal.

The Royal Kennels. IX on Pl. XV.

One building remains to be dealt with, but it lies outside the Precinct and is of a very different character from the splendid shrines just described; even the poor houses of the grave-diggers' village were not so flimsily walled, nor had rooms so inadequately small for human use; we wondered what this hovel could be doing here by the king's pleasure-garden; until we found that indeed it was not a house at all. In two of the box-like compartments lay tumbled together masses of greyhounds' bones,—there were nearly thirty, between old dogs and puppies,—and there could be no doubt at all that this insignificant little place was really nothing less than the royal kennels!

The Tomb Plans.

It is interesting to compare these pleasure-gardens as a whole with the elaborate designs given in the tomb reliefs, especially in the tomb of Mery-ra (DAVIES, *T. e. A.*, 1, Pl. XXXII). It cannot be pretended that the Egyptian draughtsman shows us anything at all resembling the plan of the ruins that we have found: perhaps, as seems to be the case with the plans of the Palace and the Temple, he was content to portray water and trees, store-houses, kiosks and shrines, giving a conventional representation of what he knew to be there without troubling to remember exactly whereabouts they lay or quite what each looked like; perhaps he was more true to life than one is prone to suppose, but the original of his drawing has yet to be unearthed elsewhere: but the general idea of the garden with its buildings remains the same and there are a good many resemblances even in details, so that with the sculptor's perhaps fanciful and childish design and the tangible though only too fragmentary ruins to help us, we can reconstruct tolerably well this Petit Trianon of the fourteenth century B.C.

The Inscriptions.

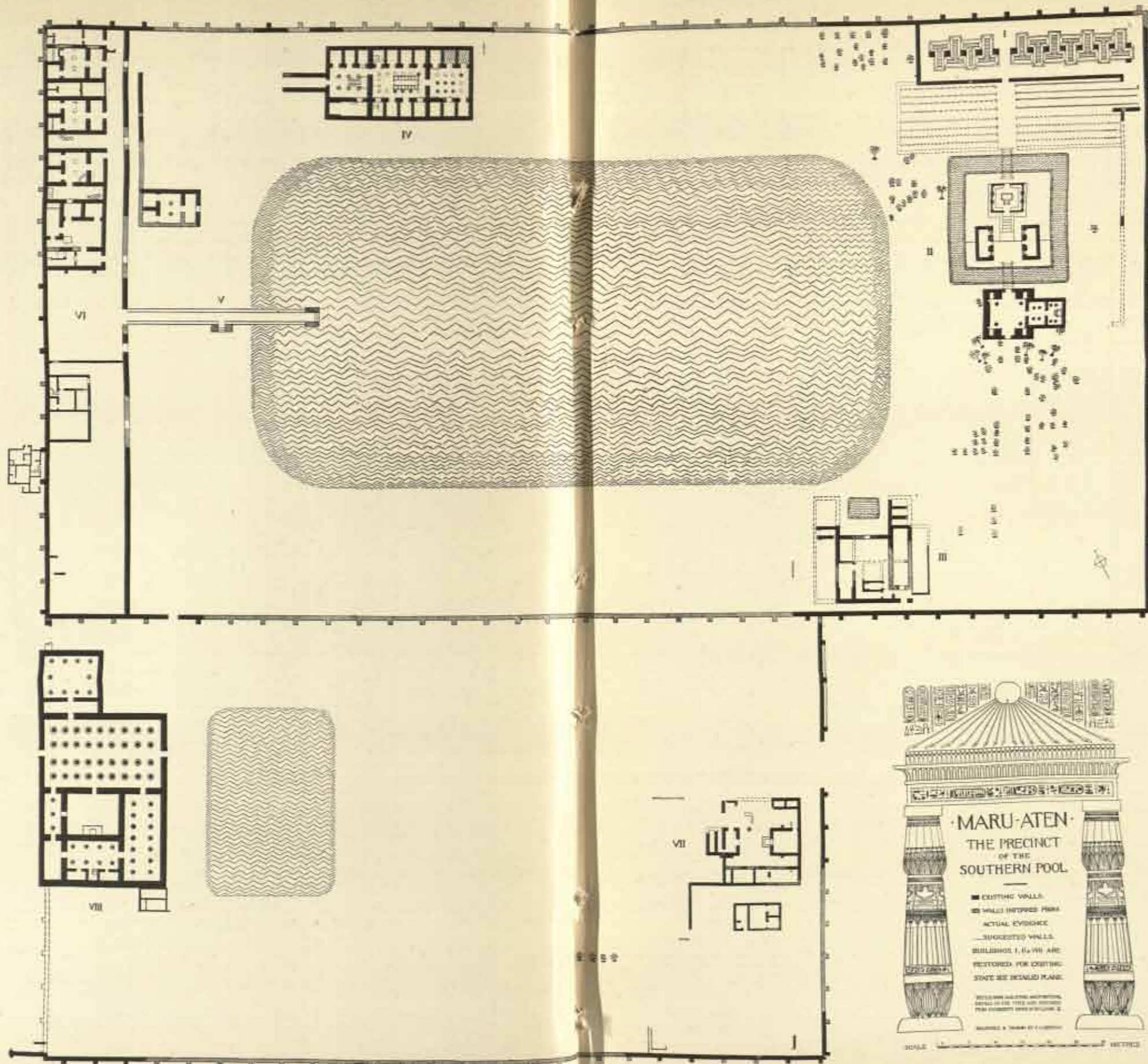
The personality of Akhenaten has made so strong an appeal to modern interest that no new fact about him can be considered unimportant; and from the Hawata ruins we have been able to recover not only a vivid picture of how the pietist king took his pleasures but also a new and unsuspected light upon the domestic life which he paraded with such insistence.

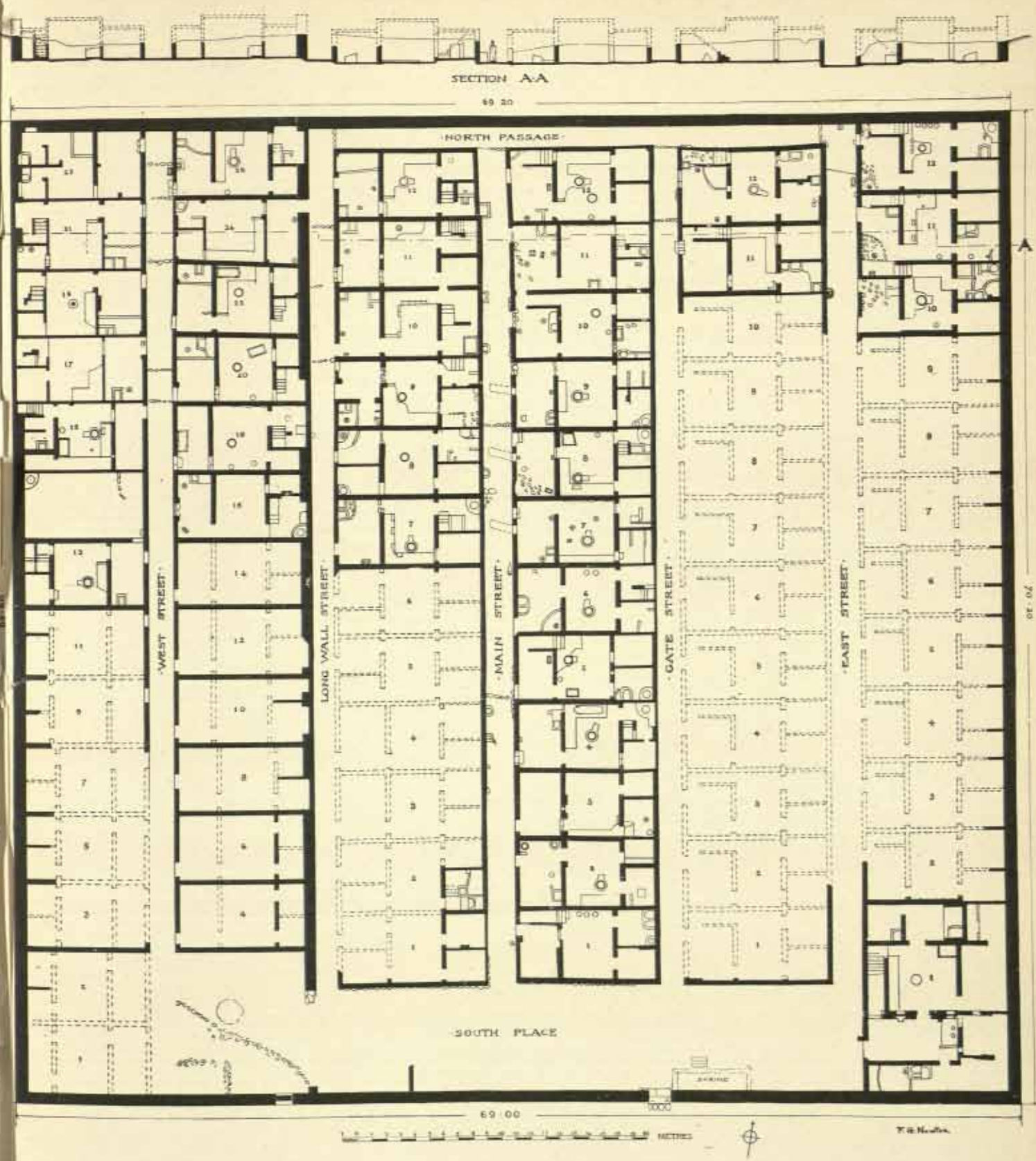
Here as elsewhere the inscriptions, like the sculptured scenes, are of a monotonous uniformity; the titles of the Aten and of the king are repeated *ad nauseam* with the conventional epithets and praises, and on all the monuments Queen Nefertiti was represented as sharing in the act of worship and taking a place second only to that of the royal ministrant. But here, as nowhere else, the queen's name has in nearly every case been

carefully erased and that of her eldest daughter, Meryt-aten, written in palimpsest upon the stone, her distinctive attributes have been blotted out with cement, her features re-cut and her head enlarged to the dropsical cranium of the Princess Royal. This alteration is most thorough-going in the case of the little temple and the island kiosks—a group of buildings which seems to have been called “The Shadow of Rê”; in the entrance hall (VIII) it is limited to the more conspicuous places, but the intention clearly is the same. The ownership or patronage of the Precinct of Aten was transferred from mother to daughter either during the former's lifetime or on her death. But Nefertiti, if alive, could hardly have agreed to so public an affront, nor would her death have been seized upon by so devoted a husband as an occasion to obliterate her memorials; are we to suppose that things were not so happy as they seemed in the royal household, and that a quarrel so serious as to lose the queen her position put an end to the idyll which had long been the standing theme of the court artists?

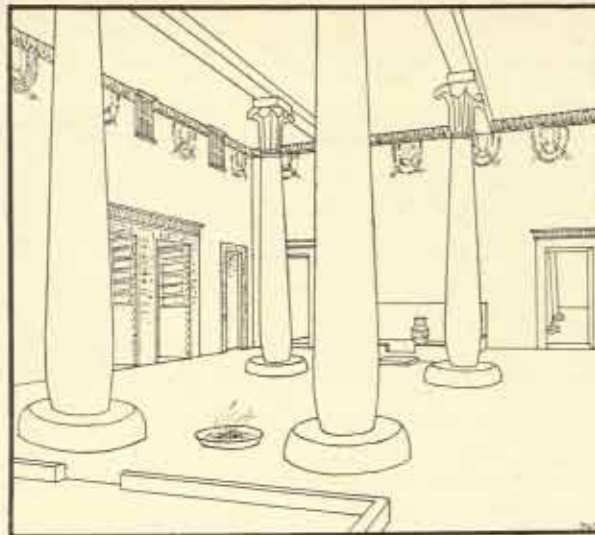




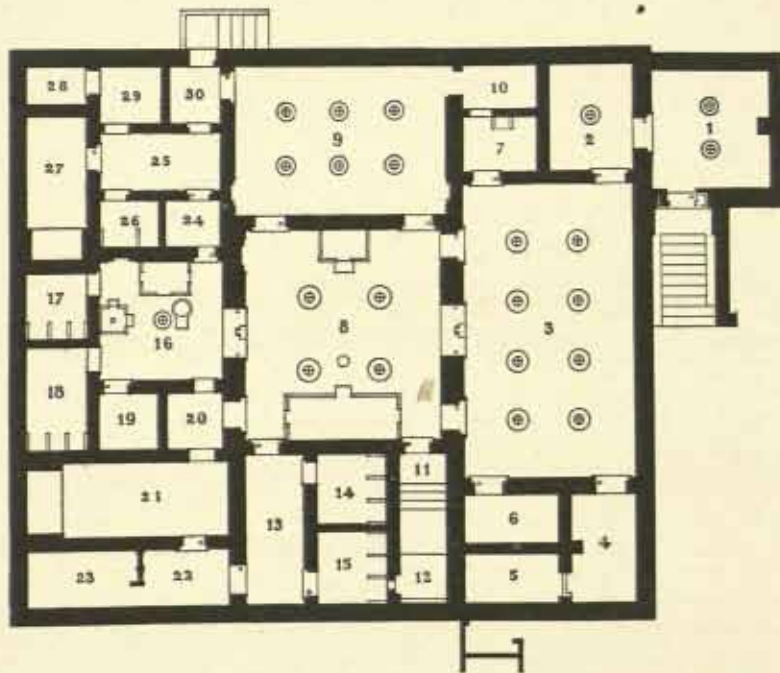




PLAN OF THE GRAVE-DIGGERS' COMPOUND



Reconstruction of the reception-room in the Vizier's House



•THE HOUSE OF THE VIZIER NEKHT•

SCALE 0 5 10 15 20 METRES

BIBLIOGRAPHY: GRAECO-ROMAN EGYPT

A. PAPYRI (1920-1921)

By H. IDRIS BELL

I HAVE again to thank Dr GARDINER, Mr TOD, Sir HERBERT THOMPSON, and Mr NORMAN H. BAYNES for references and the loan of books, and I have greatly profited by the bibliography in *Aegyptus*, which, by the kindness of the editor, I have seen in proof before publication. I should like here to call attention to the fact that the bibliography is this year arranged in a different way from its predecessors. I take this opportunity of pointing out that I have not, here or in previous instalments, thought it necessary to refer to papyrological articles in such obvious works of reference as Pauly-Wissowa-Kroll or Cabrol's *Dictionnaire d'archéologie chrétienne*. As before, I have not, in general, noticed quite short reviews, unless they make some positive contribution to the subject they deal with.

1. LITERARY TEXTS.

[Omitting religious and magical works, for which see § 2.]

I am unable to include in the present article any account of Part xv of the *Oxyrhynchus Papyri*, which is to consist entirely of literary texts, though it will doubtless have been published some time before the bibliography itself appears; and publications of new literary texts are few.

General. The most important single item of a general kind is J. U. POWELL and E. A. BARBER's *New Chapters in the History of Greek Literature* (Oxford: Clarendon Press, 1921. 8°. Pp. xi+166). This excellent little volume gives an extremely useful and on the whole just account and appreciation of the additions made by recent discoveries (chiefly papyri, but inscriptions, etc., are also dealt with) to the remains of the Greek literature of the fourth, third, and second centuries B.C. It is indeed impossible not to regret that the editors did not see their way to including also the earlier and later periods, thus affording to classical students a complete conspectus of the very considerable additions which the last half-century has made to our stock of Greek literature; but this would have meant a much bulkier volume, and we can be thankful for what they give us. The volume is a composite one, the work being distributed as follows: "The Moralists" are dealt with by E. A. BARBER (Cercidas, Phoenix of Colophon, anonymous fragments), J. U. POWELL (Chares, Pseud-Epicharmus), J. L. STOCKS (Philodemus, Polystratus, the later Epicureanism, the library at Herculaneum), and F. W. HALL (Hierocles); "Lyric Poetry" by POWELL (Philodamus of Scarpheia, Limenius, various paens, etc., Pseud-Alcman, and anonymous fragments from papyri), G. MURRAY (Hymn of the Kouretes), and C. J. ELLINGHAM (Timotheus); "Comedy" by T. W. LUMB; "Elegiac and Epic Writers" by J. U. POWELL and an anonymous author; "The Mime" by G. C. RICHARDS (Herondas) and E. A. BARBER (the later mime); "History and Biography" by E. M. WALKER (*Hell. Oxyrhynchia* and *Athenaion Politeia*), POWELL (other new fragments), and L. C. ST. A. LEWIS (Satyrus); and "Oratory" by T. W. LUMB. The volume is reviewed in the *Times Lit. Suppl.*, Jan. 26, 1922, p. 54.

A. CALDERINI has published a readable account of the more popular literature of Graeco-Roman Egypt as illustrated by the surviving specimens on papyri, from the "scolia" found in the well-known Elephantine papyrus of the early third century B.C. down to the compositions of the egregious Dioscorus of Aphrodito, some specimens of whose work, including two translations from unpublished papyri of the British Museum, he quotes. *Piccola letteratura di provincia nei papiri*, in *Aegyptus*, II (1921), 137-54.

M. Norsa publishes a rather interesting papyrus which, if not itself of a strictly literary character, has a close connexion with literature. This, a papyrus brought by Pistelli from Behnesa, the recto of which formed part of a land register, has on the verso a list of literary works, chiefly, but not entirely, those of Plato and Xenophon. This text she dates in the third century, and she offers three possible explanations of it: (1) it is a canon of standard works, (2) a catalogue of a library, (3) a list of desiderata. She inclines to the last; but C. SABBADINI in a *Postilla sul papiro precedente*, in which he quotes analogies from the

time of the Renaissance, prefers the second explanation, which does indeed seem the most likely. *Elenco di opere letterarie*, in *Aegyptus*, II (1921), 17-20; SABBADINI, 20-2.

In the same periodical (p. 74) and *à propos* of the text just mentioned, A. C[ALDERINI] calls attention to two previously published Coptic lists of books (*Elenchi copti di opere letterarie*).

P. Oxy. XIII, which consisted entirely of literary papyri, is reviewed by M. LENCHANTIN DE GUBERNATIS (*Boll. di Fil. Class.*, XXVI, 1919-20, 41-4) and N. TERZAGHI (*Riv. Indo-greco-ital.*, IV, 1920, 140-1), and L. DEUBNER'S *Bemerkungen zu einigen lit. Pap. aus Oxyrhynchos* (see *J.E.A.*, VII, 89) by K. PREISENDANZ (*Berl. Phil. Woch.*, XI, 1920, 1129-32; of some importance).

Epic poetry. Coming now to single authors, we may begin, as usual, with Homer, concerning whom I have three items. The first is an article by G. M. BOLLING, supplementary to his previous ones (see *J.E.A.*, VI, 122), in which, by the help of additional material, he tests the theory there propounded. He points out some errors and omissions in the list of literary papyri given by Schubart in his *Einführung*, and replies briefly to W. Müller's attempted refutation of his theory (*J.E.A.*, VI, 122). *Vulgate Homeric Papyri*, in *Am. Journ. of Phil.*, XLII (1921), 253-9. The second is a note by A. HUMPHERS on the ostrakon published by Wilamowitz-Moellendorf in the *Stegsb. Berl. Akad.*, 1918, 739 and explained by him as containing Homeric glosses (*J.E.A.*, VI, 120). Humphers shows that these can hardly be glosses on Homer, since Homer is quoted along with other poets. He suggests that they may be glosses on various poets arranged alphabetically, and makes some brilliant conjectures for readings, which seem likely to be right. *Gloses Homériques sur ostrakon*, in *Rev. de Phil.*, XLV (1921), 90-2. The third is an interesting article by A. CALDERINI on the "minor" scholia (*i.e.*, the scholia on single words or phrases) on Homer in papyri. He undertook the study with a view to throwing light on the evolution of the scholia known in the later vellum MSS., and after giving a list of the papyri in question (which includes the texts of three unpublished wax tablets at Berlin and a republication of two other MSS.), he discusses and classifies the glosses. He concludes that "l'esame minuto dei nostri testi e le osservazioni stesse di comparazione che ho ora riassunto ci mettono in guardia però contro l'ipotesi che assai vicino ai nostri testi già fosse una raccolta unica di glossi, dalla quale e i papiri e gli scoli volgari potessero discendere." *Commenti "minori" al testo di Omero in documenti egiziani*, in *Aegyptus*, II (1921), 303-26.

G. VITALE devotes a short article to the epic fragment relating to Achilles and the ransoming of Hector which I mentioned last year as published in PSI. VI (722; see *J.E.A.*, VII, 87). He suggests, quite tentatively, (1) that it is Alexandrine or post-Alexandrine, (2) that Andromache is speaking, perhaps after the fall of Troy; and he gives a continuous paraphrase of ll. 1-10, by way of indicating the possible sense. *Nota al PSI. VI 722*, in *Aegyptus*, II (1921), 37-42.

Lyric Poetry. G. V. suggests an improved punctuation for a passage in Aleman's *Partheneion* (*Ad Alemanem*, in *Mnemosyne*, N.S., XLIX, 1921, 426). H. DIELS, in a small leaflet dedicated to Wilamowitz-Moellendorf, restores, *exempli gratia*, part of a poem of Alcaeus, known from two fragments published respectively in the *Berliner Klassikertexte* and by Reinach. *De Alcaei Voto: Scheda gratulatoria... ad U. de Wilamowitz-Moellendorf*. Berlin: Weidmann, 1920. 8°. Pp. 8.

Under the head of Sappho there are several items to be recorded. A handy and well-printed edition of her complete fragments by M. L. GIARTOSIO DE COURTEN forms the second volume in a new series issued by the administration of *Aegyptus*. There is a fairly long introduction, good bibliographies to the single odes, and notes, both critical and explanatory. *Saffo, con introduzione, versioni e commenti* (*Supplementi ad Aegyptus, Serie di divulgazione, Sez. greco-romana*, n. 2). Ann. di *Aegyptus*, 1921. 16°. Pp. iv + 176. L. 10.

E. LOBEL, who in the course of his work on Sappho has subjected the British Museum papyrus of the Nereid Ode to a new examination, publishes the text at which he has now arrived. It will be a disappointment to many; for in place of the continuous text which the labours of the first editors and the conjectures of Blass had given us we have now some sadly fragmentary stanzas, bristling with unsolved problems, only the first being completely restored. But the essential condition for re-establishing what Sappho wrote is to remove erroneous readings of the visible letters; and this service Lobel has rendered. The field is now clear for further restorations. *Sappho, Book I: The Nereid Ode*, in *Class. Quart.*, XV (1921), 163-5.

I mentioned last year (*J.E.A.*, VII, 88) Lobel's brilliant combination of *Berl. Klassikertexte*, V (2), 9 ff. with *P. Oxy.* 424. J. M. EDMONDS has utilized the text thus yielded to essay a new restoration of the poem. His conjectures are, as usual, ingenious, but the fragments are so scanty that there seems little likelihood of his having hit upon the original text. Such reconstructions are indeed more entertaining than useful. *The Berlin Sappho Again*, in *Class. Rev.*, XXXV (1921), 139-41.

In a further article L[OREL] publishes a partial reconstruction of two stanzas of Sappho, the discovery of whose source will perhaps puzzle the uninitiated, and follows them up with some miscellaneous notes, in which he makes a real contribution to the textual criticism of Sappho. *Notes on Sappho: (a) From Sappho, Bk. I. (b) Emendationes Sapphicæ*, in *Bodl. Quart. Record*, III (1921), 192-3.

In an article which, though not primarily papyrological, calls for mention here, J. M. EDMONDS utilizes a vase (1260 in Nat. Mus. at Athens, 1241 in Cat. of Collignon and Couve), showing a picture of Sappho reading a roll, as the basis for some very ingenious conjectures. He considers that the roll contains her poems, that the words *ἔπεα πτερόεντα* are perhaps the title, and the column shown, of which he gives a reading, the introductory poem to the collection. From this he deduces, (1) that Sappho arranged her own works, (2) that there was current an edition arranged by subject as well as the known one by metre. Further, in a passage of Dion Chrysostom he finds what he thinks are two quotations from the concluding poem of the collection, which he takes to be the model for Horace's *Exegi monumentum*. There may well be something in the views developed in the early part of his paper, but the later hypotheses are too airy to carry conviction. *Sappho's Book as Depicted on an Attic Vase*, in *Class. Quart.*, XVI (1922), 1-14.

A work by K. ARON on the *Persæ* of Timotheus, apparently of considerable importance, is not accessible to me and known only from a review by K. SEELIGER (*Berl. Phil. Woch.*, XI, 1920, 913-6). *Beiträge zu den Persern des Timotheos*. Diss. Erlangen, 1920. Pp. 43.

WILAMOWITZ-MOELLENDORFF has published an important article on Cercidas, giving texts with new readings, and discussions of metrical and other points. *Kerkidas*, in *Stegaber. d. Preuss. Ak. d. Wiss.*, 1918, XLIX, I, 1138-81.

Elegiaca, etc. Under this head I have but two items. The recently published fragment of Tyrtæus (*J.E.A.*, VI, 1920, 120) is discussed by A. GERCKE, who gives the text of ll. 6-24, with notes and suggestions for readings. *Der Neue Tyrtæos*, in *Hermes*, LVI (1921), 346-54. A. CALDERINI in an interesting article on *P. Oxy.* VII, 1011, holds (a) that the *Iambi* of Callimachus formed a unity, (b) that possibly Hipponax was the speaker throughout, (c) that the poems were linked together by a common reference to Apollo, (d) that they rank, with the *Ibis*, among Callimachus's works of literary criticism. *Dei 'Giambi' di Callimaco*, in *Miscellanea di Studi critici in onore di Ettore Stampini* (Torino, Lattes, 1921), 157-63.

Drama. A useful piece of philological work is a monograph on the vocabulary of the *Ichneutæ* of Sophocles by L. O. TH. TUDEER. He takes the noteworthy words in classes, arranging them further in alphabetical order, with notes on each. At the end is an "Index vocabulorum." *De vocabulis quibus Sophocles in Ichneutis fabula satyrica usus est*, in *Suomalaisen Tiedeakatemia: Ann. Acad. Scient. Fennicæ, Helsingfors*, Ser. B., XIV, 4. Helsingfors, 1916. Pp. 94. M. HOFFMANN publishes, with a brief introduction and a memoir of the author, a German metrical completion (following immediately on Robert's translation of the preserved portion) of the *Ichneutæ*, by W. HOERICH, a young scholar-poet killed in the war. *Eine deutsche Ergänzung von Sophokles' Spürhunden*, in *Neue Jahrb. f. d. Klass. Alt.*, XI (1917), 235-48. K. PREISENDANZ reviews, very briefly and in laudatory terms, Bethe's monograph on the play noticed by me last year (*J.E.A.*, VII, 89). *Lit. Zentralbl.*, 1920, 571. H. I. BELL calls attention to an account in a British Museum papyrus which throws an unexpected light on the vexed question whether Sophocles wrote three or only two plays on the subject of Thyestes. The account relates, at least in part, to a scriptorium or bookseller's business and includes a payment for copying the *Plutus* of Aristophanes, the "third *Thyestes*" of Sophocles, and another work. Bell discusses various questions which the account raises, among others that of the remuneration of scribes. *The Thyestes of Sophocles and an Egyptian Scriptorium in Aegyptus*, II (1921), 281-8.

W. MOREL has published a dissertation on the *Hypsipyle* of Euripides, which I know only from a brief review by N. WECKLEIN (*Phil. Woch.*, XLJ, 1921, 961-2). The reviewer praises the work but differs strongly from the author's view of the part assigned to Hypsipyle's sons, in which he agrees decisively with Hunt. *De Euripidis Hypsipyla*, Diss. Frankfurt a. M., 1921. 8°. Pp. 49.

WILAMOWITZ-MOELLENDORFF publishes an important article on the fragments of the *Melanippe*, utilizing also the papyrus evidence. The article is a working-up of the material prepared for a thesis *De Euripidis Melanippa captiva* by a pupil, H. PETERSEN, who was killed in the war. Petersen had intended a work on all the dramas of Euripides to which additions had been made by recent finds, and had made many discoveries, now lost by his untimely death; and even his work on the *Melanippe* was not sufficiently advanced to appear without considerable editing. *Melanippe*, in *Stegaber. Preuss. Ak. d. Wiss.*, 1921, II/III, 63-80.

FR. AGENO offers reconstructions of certain lines in the *Antiope* (P. Petrie, 1, 1 and other fragments). *Ad Euripidis fragmentum Antiope 185 N. et al.*, in *Riv. Indo-greco-ital.*, IV (1920), 210-2.

J. VAN LEEUWEN has brought out a third edition of his *Menander*, which will be welcomed by students of this dramatist. A feature, however, much to be deprecated is the omission from the text itself of the brackets indicating restorations, where lines are imperfect. This is all very well where lacunae are small and the supplements certain but is extremely inconvenient in the case of more disputable restorations. The insertion of fairly full stage directions, on the other hand, is an excellent feature. *Menandri Fabularum Reliquiae*. Lugd. Batavorum: A. W. Sijthoff, 1919. 8°. Pp. xxvii+256. Fl. 4.90. The volume is reviewed by G. GROENEBOOM (*Museum*, Leyden, XXVIII, 1920, 49-51) and A. KÖRTE (*Berl. Phil. Woch.*, XL, 1920, 625-31; laudatory, but making some unfavourable criticisms).

Menander has also been added to the Loeb library, with a translation by F. G. ALLINSON. The volumes of this library are always welcome, and this is no exception; there are good stage directions, summaries of the probable sense in passages too imperfect for plausible restoration, and suggestions as to the course of the action in the lost portions of the plays. A short introduction gives a discriminating criticism of *Menander*, whose very substantial merits have been most unjustly depreciated by scholars who had apparently expected in him qualities which the already available evidence should have taught them he was not likely to possess; and the translation, if uninspired and in rather dragging verse, is competent. *Menander: The Principal Fragments. Loeb Classical Library*. London: Heinemann. New York: G. P. Putnam's Sons, 1921. Pp. xxxi+540. On this volume see a letter by W. G. WADDELL in the *Times Lit. Suppl.* (March 23, 1922), making some corrections.

K. FR. W. SCHMIDT has published a rather important article on *Menander*, with suggestions for restorations or new readings (*Zu Menander*, *Phil. Woch.*, XLI, 1921, 714-20, 737-43); and it should also be mentioned that T. W. LUMB, in his chapter on Comedy in Powell and Barber's *New Chapters* mentioned above, makes several suggestions for readings.

G. CAPOVILLA, in an article on the Ghorân comic fragments first published by Jouguet, subjects them and Körte's arguments against the suggested Menandrian authorship to a minute examination, as a result of which he concludes that they are indeed by *Menander*. The second he identifies with the *Δις ἐξαρτῶν*, the model of the *Bacchides* of Plautus. *I frammenti comici di Ghorân*, in *Bull. Soc. Arch. d'Alexandrie*, N.S., IV, 193-229.

An article on the seventh and fourth mimes of Herondas by N. TERZAGHI, which I know from the bibliography in *Aegyptus* (II, 1921, 381, no. 1723), is at present inaccessible to me. *Eroda, Mim. VII 66, e IV 94 e seg.*, in *Boll. Fil. Class.*, XXVIII (1921), 59-61. The same scholar publishes an Italian verse translation of the seventh mime. *Da Eroda: Il Calzolaio (VII)*, in *Atene e Roma*, N.S., II (1921), 188-94. O. KERN suggests that in IV, 44, *ἐστὶν δ' εἰς μ' ὀπρὶνα καπνὸν μίζαν*, there is a reference to "das Kriebesgespenst Karkinos." *Noch einmal Karkinos*, in *Arch. f. Religionswiss.*, XX (1920), 236.

I may mention here that A. D. KNOX's edition of Herondas, a completion of the task begun by Headlam, is practically finished and will probably have been published by the time this article appears. Knox has done some very valuable work on the detached fragments, all of which, except three very minute ones, are now placed with complete or approximate certainty.

The "Macedonian dialogue" in *P. Freib.* 2 is the subject of an article by L. DEUBNER, who greatly improves the text by some new readings. He holds that the dialogue is in the style and probably of the period of Lucian. It is of a dramatic character, showing the influence of the Attic drama, especially the Old Comedy. *Zum Freiburger Makedonierdialog*, in *Hermes*, LVI (1921), 314-9. An addendum to this article, making a further improvement in the text, is published by him (*Nachtrag zu S. 314 ff.*) on p. 445 of the same periodical.

Musie. R. WAGNER publishes an article on the Berlin musical papyrus edited by Schubart (see *J.E.A.*, VI, 1920, 121). After a revision of the text by a collation with the papyrus, and notes on readings, come two plates giving the musical notation, after which is a discussion of the musical questions involved. In an aesthetic appreciation of the airs Wagner speaks well of A and enthusiastically of D ("eine Perle von hellstem Glanz"). After this follows a more general discussion of the remains of ancient music. *Der Berliner Notenpapyrus*, in *Philologus*, LXXVII (1921), 256-310.

Historical writers. KENYON has re-edited for the *Script. Class. Bibl. Oxoniensis* the *Athenaion Politeia*, a welcome addition to this admirable series. An Index Nominum is given. *Aristotelis Atheniensium Respublica*. [1920.] Reviewed by K. HUDK. (*Nord. Tidskr. f. Filologi*, IX, 1920, 137-8) and Sr G. STOCK

(*Class. Rev.*, xxiv, 1921, 70-1). KENTON has also published for the series *The Works of Aristotle Translated into English* a revision of his old translation of this work. Oxford: Clarendon Press, 1920 (in one cover with the *Oeconomica*).

L. CASTIGLIONI reviews Lipsius's edition (under the name of Cratippus) of the *Hellenica Oxyrhynchia*. He makes various suggestions for readings other than those adopted by Lipsius. He prefers to regard the work as anonymous. *Cratippi Hellenicorum Fragmenta Oxyrhynchia*, in *Boll. di Fil. Class.*, xxvii (1920-1), 146-7.

The other Oxyrhynchus historical work, *P. Oxy.* 1365, which has figured so largely in discussions of the authorship of the *Hell. Oxy.*, is the subject of an article by E. CAVAIGNAC, who concerns himself mainly with the question as to the dates of the Orthagoridae. *À propos d'un document nouveau sur les Orthagorides*, in *Rev. ét. gr.*, xxxii (1919), 62-6.

M. LENCHANTIN DE GUBERNATIS, in an article on a fragmentary passage in Didymus's commentary on Demosthenes quoting Philochorus (7, 35-51), gives the text of the papyrus with supplements, partly his own and partly those of others, and discusses the situation and the incidents reported. *Frammenti didimei di Filocoro*, in *Aegyptus*, ii (1921), 23-32.

Orators. The new Lysias papyrus (*P. Oxy.* 1606) is the subject of two articles by French scholars. TH. REINACH holds that the case in the *Πρὸς Ἰπποθέσσην* could not be, as suggested by the editors, a *δικὴ ἐξούλης* brought against a slave of Lysias because (1) Lysias, as an alien, possessed no real property, (2) a *δικὴ ἐξούλης* could not in any case be brought against a slave. The slave was, he holds, the subject, not the object, of the action; she had been bought by Hippotheres when Lysias's property was seized by the Thirty Tyrants, was taken again by Lysias on the restoration of the democracy, and was now being claimed by Hippotheres. Reinach regards Lysias's case as legally rather shaky but thinks that from a jury apt to be influenced by patriotic and democratic considerations, he would secure a verdict in his favour. *Le plaidoyer de Lysias contre Hippotherès*, in *Rev. ét. gr.*, xxxii (1919), 443-50. P. CLOCHÉ also analyzes and discusses the speech. *Le Discours de Lysias contre Hippotherès*, in *Rev. ét. anc.*, xxiii (1921), 28-36.

M. L. W. LAISTNER makes use of *P. Lond.* 132 for an article on the textual criticism of Isocrates. He usually prefers the readings of the papyrus, which he holds tends to counteract the over-estimation of I. Isocrates, in *Class. Quarterly*, xv (1921), 78-84.

Philosophy. An article by E. VILLA on the *Protrepticos* of Aristotle making much use of *P. Oxy.* 666, to which there is a reference in *Aegyptus*, ii (1921), 239 (no. 1370), is inaccessible to me. *Il Protrepticos di Aristotele*, in *Rend. Ist. Lomb.*, lxxx (1920), 539-49.

In *P. Herc.* 1457 (Philodemus, *Περὶ Κακίων*, vii) Philodemus quotes cap. v of the *Characters* of Theophrastus. O. NAVARRE examines the text here found, and concludes that it represents a better tradition than AB. The papyrus does not, he holds, contrary to the assertions of G. Pasquali, invalidate the classification of the MSS. by Diels but rather fortifies it. He deals with its significance for the history of the text and also has notes on readings. *Le Papyrus d'Herculanum (sic) 1457 et le texte des Caractères de Théophraste*, in *Rev. ét. anc.*, xxiii (1921), 261-72.

Philodemus himself is the subject of several articles. D. BASSI publishes "un primo saggio di lettura" of parts of some fragmentary columns of *P. Herc.* 873 (*Papiro Ercolanese* 873: *Φιλοδήμων περὶ ὁμιλίας*, in *Riv. di Fil.*, xlix, 1921, 340-4) and also parts of the very fragmentary *P. Herc.* 1678 (*Papiro ercolanese inedito* 1678, the *περὶ ἐπιχαιρετικίας*, in *Riv. Indo-greco-ital.*, iv, 1920, 65-7). K. PRAECHTER publishes a "Nachtrag" to Philippson's restorations (see *J.E.A.*, vi, 1920, 127) of the *περὶ ὁργῆς* (*Zu Philodem ΠΕΡΙ ΟΡΓΗΣ* *Fr. E. (P. 4 Wilke)*, in *Hermes*, lvi, 1921, 334-5). PHILIPPSON continues his work on the *Περὶ εὐσεβείας* (see *J.E.A.*, vii, 1921, 90). The present instalment contains the following sections:—v. Das zweite Buch. vi. Der Text des Pap. 1077. vii. Der Pap. 1098. viii. Die Papyri 1610 und 229. ix. Die Pap. 437, 1788 und 452. He gives lengthy quotations of the text, with notes and discussions. *Zu Philodemus Schrift über die Frömmigkeit*, in *Hermes*, lvi (1921), 355-410. Finally, U. GALLI, in an article on Aristotle and Philodemus, discusses the importance of the latter for the history of aesthetics. *A proposito di Aristotele e di Filodemo*, in *Atene e Roma*, N.S., ii (1921), 175-88.

Romances. Among the new literary texts mentioned by me last year (*J.E.A.*, vii, 87) was a text, published by M. NORSI in *Aegyptus* and described by her as scholia on an unknown text, which I suggested might rather be "a prose narrative or paraphrase." B. LAVAGNINI also rejects the view that it consists of scholia, and thinks it was a romance of Troy. The subject is the contest for the arms of Achilles; one party was Neoptolemus. Dictys reports only the contest for the Palladium; and perhaps both the *Aegyptus*

fragment and Dictys's story co-existed "in una medesima narrazione." *Un frammento di un nuovo romanzo greco di Troia?* in *Aegyptus*, II (1921), 192-9.

The same author publishes an article which is, he says, to be regarded as a contribution towards the appendix to a work shortly to be published in the *Ann. d. Sc. Normale Sup. di Pisa* on *Le origini del romanzo greco*. In this article he communicates various restorations and conjectures on the texts of published romances, viz.:—(1) the Ninus romance (conjectural restoration of col. 1 of fragm. A, with notes on various passages elsewhere); (2) the *Parthenope*, *Archiv*, I, 264-7; (3) the *Chione*, *Archiv*, I, 255-64 (proposes to change the order of second and third fragments; notes on various passages); (4) P. Mahaffy publ. in *Rend. Linc.*, 1897, *Hermathena*, XI, 322-30. From a review by A. CALDERINI in *Aegyptus* (II, 1921, 364-8), received as this article was going to press, I learn that LAVAGNINI's work has now appeared (*Ann. d. Sc. Norm. Sup. di Pisa*, XXVIII, 1921, 1-104).

Another article on the romances by the late F. GABIN (*I papiri d'Egitto e i romanzi greci* in *St. It. Fil. Class.*, N.S., 1920, 162-83) I know only from a review by A. CALDERINI in *Aegyptus* (II, 368-9).

Law. P. M. MEYER publishes some Berlin fragments from the same MS. as the Vienna *Formula Fabiana* (*Mitt. Rainer*, IV, 1 ff.), containing a work of the jurist Paulus, probably, Meyer thinks, from his *Libri ad Plautium*. He gives a diplomatic transcript, then a commentary, with restoration of single passages, and finally the complete text as restored. *Neue Juristen-Fragmente (Paulus) auf einem Berliner Pergamentblatt*, in *Z. Sav.-St.*, XLII (1921), 42-57.

Literary History. H. FREY has published a dissertation on Satyrus's *Life of Euripides* (*P. Oxy.* 1176), which I know only from a review by WECKLEIN (*Phil. Woch.*, XLI, 1921, 49-50). Frey has, it appears from this review, little opinion of Satyrus; he concludes "dass Satyros seine Arbeit nicht als wissenschaftlich-biographische sondern als epideiktische Leistung darbot und gewürdigt wissen wollte." *Der Bios Εὐριπίδου des Satyros und seine literaturgeschichtliche Bedeutung*. Diss. Zürich. 8°. Pp. 51.

2. RELIGION AND MAGIC.

(Including texts.)

T. GRASSI in a short article publishes a summary of the main conclusions in a work which she is shortly to publish under the title *I Tesori dei templi nell'Egitto greco-romano secondo i papiri*. The work, which is to form one of the series of monographs published by the direction of *Aegyptus*, is evidently of interest for students both of art and of the cults of Graeco-Roman Egypt. In *Aegyptus*, II (1921), 108-10.

A. CALDERINI has published an article on the priests and priesthoods of Roman Egypt, in which he collects, with a commentary, the clauses of the Gnomon papyrus relating to this subject. *Sacerdoti e sacerdoti nell'Egitto degli Antonini*, in *Bilychnis*, II Ser., N. 52, 1921, pp. 3-14 (or perhaps these are the pages of the off-print only).

The right of asylum enjoyed by so many Egyptian temples was the subject of an important article mentioned by Tod in his bibliography last year (*J.E.A.*, VII, 105). *À propos* of this, P. PERDRIZET cites some mediaeval parallels, which he thinks are survivals of Graeco-Egyptian paganism. *Asiles gréco-égyptiens*, in *Ann. du Serv.*, XX (1920), 252-5.

It is perhaps worth while to refer in passing to a work which does not in strictness fall within my sphere—a dissertation by R. ELBERN on the question as to the possible connexion of Pythagoras's doctrines with Egypt. He decides that Pythagoras was not influenced by Egypt to any appreciable extent. *Die pythagoreischen Erziehungs- und Lebensvorschriften im Verhältnis zu ägyptischen Sitten und Ideen*. Diss. Bonn, 1916. Pp. v+63.

Sarapis still continues to evoke a good deal of controversy, and I have three items on my list referring to him. K. SETHE, as a contribution towards the settlement of the question concerning the nature of the *καροχὴ* in the Serapeum, republishes a Demotic document written on the verso of *P. Par.* 56 published in 1893 but allowed by scholars to pass unnoticed. It is a testimony concerning a robbery; there is no name, but the document evidently proceeds from the Harmais of *Par.* 35, 19, etc. The relevant passage is thus translated by Sethe: L. 2, "Ich hüte die Kapelle nunmehr 8 Jahre ²hinein seit meinem Herausgehen aus Prj-ḫws. Nicht tue ich hinauskommen ⁴aus der Umfassungsmauer des Heiligtums, indem ich mit der Göttin bin in dem Innern meines Ortes mit Ptolemaios." *Ein bisher unbeachtetes Dokument zur Frage nach dem Wesen der καροχὴ im Serapeum von Memphis*. Papyrusinstitut Heidelberg, Schrift 2. Berlin u. Leipzig: Verein. wiss. Verleger, 1921.

In another article SETHE deals summarily with the points at issue between him and Wilcken, in regard to the origin and nature of the Sarapis cult. His view as here stated is:—(1) that the cult was of Memphite origin (Wilcken agrees); (2) that the name Σαράπις was a fairly close transcription of Usarhapi (Osiris-Apis), via 'Osapapis' = 'O Σαράπις' (as against W., who thinks it was merely an equivalent of the Egyptian name); (3) that the statue came, as Plutarch and Tacitus report, from Sinope, and was not (as W. holds) of Egyptian origin. *Zur Herkunft des Sarapis*, in *Janus*, Ites Heft, *Festschr. zu C. F. Lehmann-Haupt's Sechzigsten Geburtstage*, 207-13 (Wien u. Leipzig: W. Braumüller, 1921).

Wilcken's article on the κάρουχοι (*Archiv*, VI, 184 ff.) has been reviewed by SUDHOFF in a periodical not accessible to me (*Mitt. z. Gesch. d. Medizin*, XIX, 1920, fasc. 1/2; see *Aegyptus*, II, 133, no. 1189).

I have also been unable to see a monograph by B. A. VAN GRONINGEN on the Oxyrhynchus hymn to Isis. *De Pap. Oxy. 1380*. Leuwarden, 1921. Pp. 84.

G. GLOTZ in an unusually interesting and brilliant article, utilizes a Ptolemaic account, *P. Petrie III*, 142, to obtain some most surprising and very valuable results. Starting with the mention of στεφάνια τῶν Ἀδώνει, he shows the religious significance of each entry, the account proving in his hands to be a life-like picture of the proceedings at the great Adonis festival. There were, it appears, three days of the festival: first, the marriage of Adonis and Aphrodite; second the death of Adonis (a day of mourning); third, his resurrection, with a mystery play (εἰς δεικνύσιον). Glotz collects much information about festivals and religious observances in various localities, and throughout compares the evidence of the papyrus with that of Theocritus's *Adoniasusae*. *Les fêtes d'Adonis*, in *Rev. ét. gr.*, XXXIII (1920), 169-222.

G. LEFEBVRE discusses the nature and origin of the rider-god Heron, to whom there are various dedications. He concludes that he is the rider-god of Thrace; he is sometimes identified with Apollo, hence, being partly solar, perhaps with Horus, and also with Tum, the Heliopolite form of Râ. *Le dieu Ἡρών d'Égypte*, in *Ann. du Serv.*, XX (1920), 237-49. Following on this article, G. DARESSY examines the mounted figure on certain coins of Diospolis, who has hitherto been identified with Amon-Râ, but in whom Daressy now recognizes Heron. But why at Diospolis? Probably, concludes Daressy, because Thracian troops were at some time stationed there. *Le dieu Héron sur les monnaies du nome Diospolite*, *ibid.*, XXI (1921), 7-16.

Preisigke's *Vom göttlichen Fluidum* (*J.E.A.*, VII, 96-7) is reviewed by VON BISSING, who cannot accept the author's thesis (*Berl. Phil. Woch.*, XL, 1920, 1165-7).

I have been unable to find an article by P. ROUSSEL referred to in *Aegyptus*, II (1921), 246 (no. 1490) as *Un règlement du II^e siècle après J.-C. relatif à la police des cultes en Égypte*, in "*Rev. hist. littér. relig.*", 1920 (Sept.), no. 3."

Coming now to Christian literature, I have first to mention three articles which deal with the Old Testament. The first, to which a passing reference is sufficient, as it does not fall strictly within my sphere, is one by A. GUILLAUME on *Isaiah xlv. 5 in the Light of the Elephantine Papyri* (i.e. the Aramaic papyri), in *Expos. Times*, XXXII (1920-21), 377-9. The second, also relating to the Aramaic papyri, is by W. S. C. TISDALL, in which, on linguistic grounds, based on the study of these papyri, he pleads for a reconsideration of the prevailing view as to the date and authorship of Daniel. He himself inclines to accept the genuineness of the book. *Egypt and the Book of Daniel: or What say the Papyri?* in *Expositor*, 8 Ser., 1921, 340-57.

H. A. SANDERS gives a preliminary report on a very important papyrus MS. of the Minor Prophets, bought for Messrs J. Pierpont Morgan and Charles L. Freer in 1916 and taken to America in 1920. It consists at present of 28 leaves, imperfect at the top, and "rather numerous fragments." Sanders dates it third century probably, in any case not later than 325. This early date may give one pause, as no facsimile is given, but the facts stated as to orthography, lectional signs, etc. seem favourable to Sanders's view. The MS. contains several striking readings; it agrees most often with Q, but sometimes only with the later cursives. *A Papyrus Manuscript of the Minor Prophets*, in *Harvard Theol. Rev.*, XIV (1921), 181-7.

Evelyn White's edition of the *Logia* is very favourably reviewed by A. VON HARNACK, who accepts several of his conclusions. "Sie ersetzt m. E. nicht nur alle früheren, sondern bringt sie auch zu einem Abschluss, über den hinaus nicht mehr viel zu forschen sein wird, bis wir neues Material erhalten." *Theol. Lit.-Z.*, XLVI (1921), 4-5. Another (anonymous) review appears in *Journ. Hell. Stud.*, XLI (1921), 163. M. J. LAGRANGE, rejecting all previous restorations but retaining the idea of a feast, essays a new restoration of Saying 3 (in *P. Oxy.* 654). His text gives the following sense: "Un homme embarrassé de savoir où aller n'hésitera pas à s'informer auprès de quelque ami sur le lieu du festin; sinon il apprendra par expérience que beaucoup seront: les premiers les derniers, et les derniers les premiers, et seuls ils auront

la vie (ou l'entrée).²² This is certainly ingenious, but it cannot be regarded as quite convincing. *Une des Paroles attribuées à Jésus*, in *Rev. Biblique*, xxx (1921), 233-7. Saying 2 of the same papyrus is the subject of an article by SCHUBART, who, with Taylor, very convincingly connects it with Job xii 7, reading $\epsilon\lambda\kappa\alpha\upsilon\tau\epsilon\varsigma\ \eta\mu\acute{\alpha}\varsigma$ [$\epsilon\iota\varsigma\ \tau\acute{\omicron}\nu\ \kappa\acute{\omicron}\rho\mu\omicron\nu\ \epsilon\tau\iota$]. His restoration also is ingenious and well argued, but again it is not, as a whole, entirely convincing, though certainly as much so as any of its predecessors. *Das zweite Logion Oxyrhynchus Pap. iv 654*, in *Z. f. d. neutest. Wiss.*, xx (1921), 215-23.

R. REITZENSTEIN discusses *P. Oxy.* 1601. He considers the work which that papyrus contains the chief source of Jerome's commentary on Joel, and (if I rightly understand him) holds that it is probably Origen's. *Origenes und Hieronymus*, in *Z. f. d. neutest. Wiss.*, xx (1921), 90-3. S. G. MERCATI, in the fourth of a series of papyrological notes, discusses the Pseudo-Chrysostom fragment in *P. Oxy.* 1603. Re-examining the question of authorship, he adheres to the view that it is spurious. He gives a new text, with a collation of the MSS. *Note papirologiche. 4*, in *Biblica*, ii (1921), 229-39. In the third of these notes (*Biblica*, i, 1920, 371-5) he identifies the fragments of papyrus found by Montfaucon in the library of St Martin of Tours and published by him in his *Palaeographica Graeca*, p. 214, as from the Homily of St Ephraim Syrus $\epsilon\iota\varsigma\ \tau\acute{\omicron}\nu\ \pi\acute{\alpha}\gamma\kappa\alpha\lambda\omicron\nu\ \text{Iω}\acute{\alpha}\nu\eta\lambda\omicron\nu$. He adds notes on the text and the hand. In the first and second (*ibid.*, 270-1) he deals respectively with *P. Lond.* 113. 12 (a), which he shows to be part of a metrical homily in honour of the martyrs, and with metrical analogies from papyri or ostraca to a passage in a metrical homily $\epsilon\iota\varsigma\ \tau\eta\eta\ \chi\rho\iota\sigma\tau\omicron\upsilon\ \gamma\epsilon\eta\eta\alpha\iota$ previously published by him.

In a very interesting article, G. MÉAUTIS examines the papyrus evidence concerning the introduction of Christianity into Egypt, which he thinks agrees with the better literary sources in indicating that Egypt was mainly a pagan country till the end of the third century, though there were Christian communities in places. *L'introduction du christianisme en Égypte*, in *Rev. de Théol. et de Phil.*, 1921, 169-85.

The Egyptian church is the subject of a dissertation by A. HECKEL, in which use is made of the evidence of papyri, though the author does not seem to have a very good grasp of this portion of his material, even mis-spelling Wilcken's name throughout. His brief and summary sketch of his subject is useful as a general survey but, to judge by a cursory examination, it does not seem to go very deep or to be a work of great importance. *Die Kirche von Ägypten: Ihre Anfänge, ihre Organisation und ihre Entwicklung bis zur Zeit des Nicänum*. Diss. Strassburg, 1918. Pp. viii + 86.

An article which I inadvertently omitted from my bibliography last year, though I had noted it at the time of its appearance, is one by FR. J. DÖLGER, in which he calls attention to some recent occurrences of the $\text{IX}\Theta\Upsilon\text{Z}$ formula, especially *P. Lond.* v, 1714, which, he points out, is valuable because it shows the vitality of the symbol in Byzantine times. He attacks Wilpert's view that it was of Roman origin. *Die IXΘΥΣ-Formel in einem griechischen Papyrus des Jahres 570 und das Apsis-Mosaik von S. Apollinare in Classe zu Ravenna*, in *Byz.-Neugr. Jahrbücher*, i (1920), 40-7.

J. DE ZWAAN calls attention to the symbol P in *P. Oxy.* 74, p. 137, as $=\pi\rho\acute{\omicron}\beta\alpha\rho\alpha$, and suggests that this use may have influenced the Christian symbol P . The suggestion does not, I confess, strike me as probable. *Another Strain of Symbolism in the Chi-Rho as a Monogram of Christ*, in *Journ. Theol. Stud.*, xxi (1919-20), 332-3.

Turning now to the subject of magic, I have first of all to record a volume of great importance by TH. HOPFNER. This, the first part of a comprehensive and extremely detailed work on Graeco-Egyptian magic, so far as it was directed to the obtaining of information and revelations from the spirit world (divination), forms Part XXI of Wessely's *Studien z. Pal. u. Pap.*, and has been carefully copied by WESSELY, from whose autograph, to save the cost of printing, it is reproduced. This first volume is in the nature of an introduction to Hopfner's subject proper. It deals with the presuppositions of the magical system, its intellectual background, one may say: the hierarchy of spiritual existences whose help magic invokes, their mutual relations, the possibilities and methods of influencing them, the conditions to be observed by the magician, and so forth. It is a masterly survey of the subject, showing immense erudition and very wide reading, and it and its sequel will be an indispensable addition to the library of any student of ancient magic, indeed of anyone who wishes to understand the foundations on which magic in Europe and the Mediterranean world ultimately rests. The utmost credit must be given to all concerned—to Hopfner who has devoted himself with such patience and thoroughness to a study which must have entailed much tedious research, to Wessely for his self-abnegation in copying, with immense labour, another man's work, and to the Czecho-Slovakian Government, which, in a time of general financial stringency, granted a subvention for the publication of a work so erudite, and that a work written in German by a Privatdozent of

the German University, and published at Leipzig for a Viennese scholar. *O si sic omnes!* The volume is reviewed by WESSELY (*Byz.-Neogr. Jahrb.*, II, 1921, 487-8, very brief).

R. GANSZYNIEC reproduces, from *Archiv*, v, 393, the text of *P. Hawara* 312, proposing new supplements of his own. *Zu einer Defixion*, in *Byz.-Neogr. Jahrb.*, II (1921), 86. K. PREISENDANZ, continuing his *Miszellen zu den Zauberpapyri*, discusses the word *λόγος* which not infrequently occurs among magical formulae, showing that it is used after formulae quoted incompletely. He gives various instances (III, 7, *Zur Kürzung*: *λόγος*, in *Wiener Studien*, xli, 1919, 9-14). Further notes by him on magical papyri will be found on pp. 139-44 of the same volume.

Lastly, in the sphere of astrology I may mention a dissertation on the *Isagoge* of Nechepsonis-Petosiris by C. DARMSTADT, making use of *P. Oxy.* 235, *P. Lond.* 130, 98, and 110. *De Nechepsonis-Petosiridis Isagoge Quaestiones Selectae*. Diss. Univ. Frid. Guil. Silesiaca, 1916. Pp. 32.

3. PUBLICATIONS OF NON-LITERARY TEXTS (INCLUDING REVIEWS).

The principal single item in this section is WESSELY's publication, as Part XX of his *Studien*, of the Greek papyri described in the Rainer *Führer*. This, being described as Part I of a "Catalogue of the Rainer Papyri," is apparently only the beginning of a larger undertaking, but it makes in itself a substantial addition to the stock of published texts. It is true that not a few of the texts it contains have been published previously, whether in the Rainer *Corpus* or elsewhere, but the number of those published for the first time is considerable, and among these are several which are of great interest. The volume is one of texts only; no notes are given, and only a brief bibliography at the head of each document; and the whole is reproduced from Wessely's autograph, not printed. But to have produced such a work at all at the present time is a great achievement, and Wessely deserves warm thanks for the service he has rendered to papyrology. *Catalogus Papyrorum Raineri. Series Graeca. Pars I. Textus Graeci Papyrorum, qui in libro "Papyrus Erzherzog Rainer—Führer durch die Ausstellung Wien 1894" descripti sunt.* (*Stud. z. Pal. u. Pap.*, xx, 1921.)

Next to Wessely's volume in size and importance, but affecting my province only in part, is the edition by H. SOTTAS of the Demotic papyri of Lille. This is, even formally, not quite outside the scope of the Greek papyrologist, for it contains one Greek text (29 bis), copied by JOUGUET—an account relating to a religious (?) association, previously published in part but now given in full and with revision of readings. But even apart from this Greek text, the volume is one of considerable importance to all students of Ptolemaic Egypt, and Sottas constantly touches on points of general interest, using the evidence of Greek, as well as of Demotic, papyri. He devotes an important section of his introduction to the vexed question of the early Ptolemaic calendar, and the volume also contains new evidence for the history of the "double deed" and its evolution. There is a good series (12-20) of returns of livestock, an interesting text (29) containing the regulations of a religious association (it has, by the way, some points of interest for the history of medicine), a list of priestesses (31) which is worthy of note, and one text (32) which, if Sottas's explanation is correct, throws light on the colonization of the Fayum. I am not competent to judge the merits of the editor's decipherments of the Demotic, but his notes show a good grasp of the literature of his subject and a really critical judgment. *Institut Papyrologique de l'Université de Lille: Papyrus démotiques de Lille. Tome Ier.* Paris: P. Geuthner, 1921. Pp. 93. 18 plates.

SOTTAS had previously published separately one of these papyri, with a discussion of the evidence it contains for the intercalary days (Epagomenae). *Le Papyrus démotique inédit de Lille no. 3 et la notation des jours épagomènes*, in *C.-R. Ac. Inscr. et B.-L.*, 1920, 223-31.

The New Palaeographical Society's latest part includes facsimiles and texts of five papyri, all in the British Museum and four of them from the Zeno archive. They are:—Series II, Plate 96, *P. Lond.* 2083, B.C. 256, Artemidorus to Zeno, *P. Lond.* 2084, B.C. 244, Patascion to Zeno; Plate 97, *P. Lond.* 2079, B.C. 252-1, Hermolaus to Zeno, *P. Lond.* 2094, circ. B.C. 257 (?), the *γεωργοί* to Zoilus; Plate 98, *P. Lond.* 2078, A.D. 81-96, a letter from Didymus to Adrastus. In addition, Plate 100 is a facsimile of the diptych edited by Grenfell (*J. E. A.*, vi, 1920, 134).

EDGAR continues the publication of the Cairo Zeno papyri with little, if any, falling-off in interest. The first of the two instalments I have this time to notice contains Nos. 55-64, which are as follows:—55. Request for a *stathmos*, year 1 of Euergetes. 56 (in private possession). Deposition, 2nd year. 57. Similar document, 2nd year. 58. Petition to the king from Zeno concerning the non-return of 400 drachmae in gold, valuable for the relation of copper to gold, 4th (?) year. 59. Money account, valuable

for the exchange, undated. 60. Letter to Zeno with reference to complaints of unfairness against the writer, 5th year. 61. Document referring to money owed by a surety, throws light on the career of Apollonius the *dioecetes*, 5th or 6th year. 62. Drafts of two letters from Zeno about the *apomoira*, useful for the question of tax-farming; the sentence, "for you know well that it is not easy to recover money from the Treasury" has a pathetically modern ring; 6th year. 63. Letter about bee-keeping, with a memorandum on the subject, 7th year. 64. Letter about an auction of *ôrai*, 8th year. *Selected Papyri from the Archives of Zenon*, in *Ann. du Serv.*, xx (1921), 181-206. The second instalment (vii) contains but two texts (Nos. 65 and 66), but these are much longer than usual. They are accounts, concerning Zeno's transactions with a certain Philon over a loan, and are full of interesting and valuable material of various kinds, including new evidence concerning the Ptolemaic calendar. *Ibid.*, xxi, 89-109.

A. E. R. BOAK has edited (the first-fruits of the fine collection of papyri, etc. taken to America by Prof. F. W. KELSEY in 1920) two Greek and one Coptic school-tablets, of a common type but an interesting addition to the material for the history of the Graeco-Egyptian school. The first contains an alphabet, with syllables employing all the vowels in turn, β - β to λ - λ , and exercises on the alphabet on the verso; the second contains lessons on the letters, while the verso has the numerals up to 9000, the third the Coptic alphabet (vowels and syllables). The Greek tablets Boak dates not older than the fourth, the Coptic not older than the fifth century. *Greek and Coptic School Tablets at the University of Michigan*, in *Class. Phil.*, xvi (1921), 189-94.

Another document of an educational character is published by E. KÜHN from an ostrakon in the Berlin collection. Written in uncials in the third century B.C., it contains a passage on the duty towards his parents and friends of the man who rises in station. It is either an essay, for training in style, or a piece for dictation; the latter supposition, less likely *a priori*, is suggested by the mistake $\psi\eta\rho\omega\iota\tau\epsilon\varsigma$ for $\zeta\eta\rho\omega\iota\tau\epsilon\varsigma$. *Ein antiker Schulaufsatz*, in *Ber. aus d. Preuss. Kunstsammlungen*, xlii (1921), 101-4.

H. LEWALD, whose edition of some of the Frankfurt papyri I noticed last year, has edited separately two further fragments from the same collection, several of the papyri in which are closely connected with those in the possession of Prof. Gradenwitz. The first (Inv. 17) is the *scriptura exterior* of P. Grad. 3. The new fragment restores the text in several passages of that papyrus. The second (Inv. 20) does not indeed complete any papyrus in the Gradenwitz collection, but as it is of the same class as the unpublished P. Grad. Inv. 171, the two fragments throw light on one another, and Lewald publishes them both. They are receipts for rent, of a peculiar form. *Aus der Frankfurter Papyrussammlung (nebst einem unveröffentlichten Papyrus der Sammlung Gradenwitz)*, in *Z. Sav.-St.*, xlii (1921), 115-23¹.

An important Ptolemaic document has been published by GRENFELL. This is P. Lond. II, 465, which Grenfell restores with the aid of Wilcken, *Chrest.* 12, thus obtaining a complete text. It is a letter from the Plato of *Chrest.* 12 to the people of Pathyris, and refers, like it, to the revolt in the Thebaid. It suggests, contrary to Martin's theory, that Hierax was a "specially selected general" and Plato the epistrategus. Grenfell dates it in the 30th year of Soter II (= B.C. 87). Through Hunt, however, I have received some suggestions for new readings by COLLART, which I have verified from the original. One of them affects the date, which proves to be the 26th year of Alexander (= B.C. 88). *A New Papyrus concerning the Revolt of the Thebaid in B.C. 88*, in *Rev. ét. gr.*, xxxii (1919), 251-5.

P. M. MEYER publishes, with introduction and notes, an application, dated A.D. 104, for a lease of land at Euhemeria. It is addressed to a large landowner named Tib. Claudius Irenaeus. *Pachtangebot an einen Grossgrundbesitzer auf einem Hamburger Papyrus*, in *Lehmann-Haupt-Festschrift (Janus, 1st Heft)*, 1921, 73-9.

WESSELY breaks new ground, papyrologically, by the publication of a papyrus from the Marmarica. It is a deposit (*παράθηκη*) of money, dated A.D. 237, the depositor being from the Marcotes. The document is not only of interest as an addition to the small but growing number of papyri written outside of Egypt but throws light on geography. Thus it shows that both the districts mentioned were divided into *παραιοί*; and Wessely is enabled by it to make some corrections in the text of Ptolemy. *Ptolémée, Géographie*, iv, 5, 24 et le Papyrus Rainer N° 259, in *Rev. ét. gr.*, xxxii (1919), 504-7.

Another important text appears in the same journal. It is an edict of Hadrian, published by JOUGUET from two Philadelphia papyri at Cairo. The purpose is to remit the *ἀργυρικός φόρος* for five years in the

¹ I know this number only from various off-prints which I have received through the kindness of the authors, and it apparently contains papyrological articles which I have not seen; see below, p. 94.

Thebaid, four in the Heptanomia, and three in the Delta. The document is extremely interesting, both for its contents and for its characteristic style, and it loses none of its interest in the capable hands of its editor. In particular, reference may be made to his discussion of the ἀργυρὸς φόρος. *Un édit d'Hadrien*, in *Rev. ét. gr.*, xxxiii, 375-402.

With the Greek documents found at Avroman and edited by Minns was a document in a language regarded by him as Pahlavi. A tentative transcription and translation of this have now been published by COWLEY, who confirms Minns's view that the language is Pahlavi. The date he makes B.C. 12/11, the contents a receipt for the price of half a vineyard. He gives a facsimile. *The Pahlavi Document from Avroman*, in *Journ. of Roy. As. Soc.*, 1919, 147-54.

In the article on the edicts mentioned below (§ 6, p. 97) WILCKEN publishes the text of a recently acquired Berlin papyrus, containing the text (not complete) of the well-known edict of the prefect Tib. Julius Alexander.

P. Oxy. xiv is reviewed by H. LIETZMANN (*Theol. Lit.-Z.*, xlvi, 1921, 54-5; linguistic notes), A. TACCONI (*Boll. di Fil. Class.*, xxvii, 1920-1, 17-8, N. T[ERZAGHI] (*Riv. Indo-greco-ital.*, iv, 1920, 146-7), and J. P. W. (*Bull. Bibl. et Péd. du Musée Belge*, xix-xxiv, 1920, 270-81); Meyer's *Juristische Papyri* by A. BERGER (*Z. f. vergl. Rechtswiss.*, xxxix, 1921, 296-311; important), G. SEGRÈ (*Riv. di Filol.*, xlix, 1921, 253-6), B. KÜBLER (*Phil. Woch.*, xli, 1921, 101-5), and H. NIEDERMAYER (*Byz.-Neugr. Jahrb.*, ii, 1921, 220; brief); his *Griechische Texte* by WESSELY (*ibid.*, i, 1920, 403-4; brief); PSL v by E. KIESSLING (*Berl. Phil. Woch.*, xi, 1920, 721-3; brief); and Lwals's *P. Frankf.* by V. ARANGIO-RUIZ (*Aegyptus*, ii, 1921, 230-2).

A very welcome publication is the third *Heft* of PREISIGKE's *B.-L.*, which contains the corrections to *P. Iand.*, *P. Lille*, *P. Lips.*, and *P. Lond.* It includes the texts of two unpublished private letters from the London collection (pp. 251, 294). *Berichtigungsliste der Griechischen Papyrusurkunden aus Ägypten*, Heft 3. Berlin und Leipzig; Vereinigung wiss. Verleger, 1922.

4. POLITICAL AND MILITARY HISTORY, ADMINISTRATION, TOPOGRAPHY, CHRONOLOGY.

Though not strictly falling within my province, an article by P. CLOCHÉ on the relations between Greece and Egypt during the first half of the fourth century may be referred to. *La Grèce et l'Égypte de 405/4 à 342/1 avant J.-C.*, in *Rev. Égypt.*, ii (1922), 82-127.

One of the most interesting features of the Zeno papyri is the not infrequent glimpses which they give us of the Greek world outside Egypt. Several of them refer to Palestine, and some of these mention a certain Tubias. A. DEISSMANN, in a brief note (*Tubias*, in *Byz.-Neugr. Jahrb.*, ii, 1921, 275-6) calls attention to the historical importance of these papyri; and H. GRESSMANN deals with the same subject at much greater length. He identifies this Tubias with the Tobias mentioned by Josephus, who was the father of Joseph and grandfather of Hyrcanus; and he gives a very interesting sketch of the history of this powerful family. [It may be mentioned here that Tubias is mentioned also in a Zeno papyrus recently acquired by the British Museum.] *Die ammonitischen Tobiaden*, in *Stegaber. d. Preuss. Ak.*, 1921, xxxvii-xxxix, 663-71. The late J. OFFORD published in 1919 a brief account of the Zeno archive, and particularly of those papyri which refer to Palestine. *Newly-published Palestinian Papyri*, in *Quart. Statem. Pal. Expl. Fund.*, li (1919), 184-6.

Reference may be made to J. HASEBROEK's volume on Septimius Severus, as it makes use of papyrus evidence, especially for Severus's visit to Egypt (see pp. 121-4). *Untersuchungen zur Geschichte des Kaisers Septimius Severus*. Heidelberg, C. Winter, 1921. 8°. Pp. viii+201.

A. N. MODONA has begun an interesting article on the Jews in Graeco-Roman Egypt. The subject is an important one, and this comprehensive treatment of it is to be welcomed, but it is not perhaps as critical as it might be; the author treats the evidence of Josephus with rather more respect than most scholars, even accepting the full rights of Alexandrian citizenship for the Jews, and stating that "Alessandro Magno concesse loro gli stessi diritti dei Macedoni"; while on p. 258 he cites *P. Oxy.* 335 in the abbreviated form Νικαία Σα[βα]νῶν... πόλις τῶν Ἰουδαίων, apparently taking this as="city of the Jews"! Of course πόλις goes with the preceding Ὁξ(υρί)γχα, which he omits. *La vita pubblica e privata degli Ebrei in Egitto nell'età ellenistica e romana*, in *Aegyptus*, ii (1921), 253-75.

In the article on the edicts referred to below (see § 6, p. 97) WILCKEN has a valuable discussion of the important edict *P. Fay.* 20.

A posthumous article of the lamented J. LESQUIER deals with *P. Freib.* 7, the document relating to cleruchs. He reprints the text with a translation and a valuable discussion. He considers that the

importance of the papyrus for the history of the cleruchies has been exaggerated; it merely furnishes another instance of the assignment of *σπόριμος γῆ* to cleruchs, but proves nothing fresh. We cannot say, he holds, that the cleruchs originally *always* received *σπόριμος γῆ* or *always* received their holdings for one year only or were *always* required to let the land; suspension of judgment is best. But the papyrus is really valuable for the light it throws on the *νεαίρικοι*—a class of candidates for commissions. *Le papyrus 7 de Fribourg*, in *Rev. ét. gr.*, xxxii (1919), 359-75.

In an off-print of a note by E. WEISS on a recently published inscription which mentions the grant of Roman citizenship to Volubilis in Mauretania (to which reference may here be made, as it contains references to papyri: *Die Verleihung des römischen Bürgerrechtes an die Einwohner von Volubilis*, in *Z. Sav.-St.*, XLII, 1921, 639-41) is contained the beginning of a note entitled *Ἐπρυονή—in der χώρα (also nicht in Alexandrien) geborene Soldatenkinder?* (*ibid.*, 641-3; the author is FR. VON WOESS, as I learn from the bibliography in the current *Aegyptus*). The author (who refers to an article by himself, not yet accessible to me, in the same number, apparently on the Persians of the Epigone) rejects Wilcken's idea that the *Ἐπρυονή* denoted only the children (not the remoter descendants) of soldiers, and doubts the idea that it excluded natives of Alexandria.

E. LATTES has published a further article on the word *cleruchies* on the wrappings of the Agram mummy, supplementary to her previous one in *Archiv*, vi, and referring to a recent discussion by Herbig of her theory that the man was an Etruscan cleruch in Egypt. *Ancora dei cleruchi etruschi in Egitto*, in *Aegyptus*, II (1921), 276-80.

Lesquier's *Armée romaine* is appreciatively reviewed by G. ROUILLARD (*Rev. de Phil.*, XLIV, 1920, 171-2), G. BLOCH (*Rev. ét. gr.*, XXXIII, 1920, 108-13), J. CARCOPINO (*Rev. ét. anc.*, XXIII, 1921, 68-74), and EV. BRECCIA (*Bull. Soc. Arch. d'Alexandrie*, N.S., IV, 251-94; a good summary of Lesquier's conclusions).

Oertel's *Liturgie* is reviewed by H. KRELLER (*Z. Sav.-St.*, xli, 1920, 300-4), and Steinwenter's *Studien z. d. Kopt. Rechtsurk.* (which, though preliminary to a juristic study, is itself actually concerned for the most part with administration, and is therefore mentioned in this section), by A. BERGER (*Z. f. vergl. Rechtsw.*, XXXIX, 1921, 312-3), M. SAN NICOLÒ (*Lit. Zentralbl.*, LXXII, 1921, 742-4), H. I. BELL (*J.E.A.*, VII, 1921, 229-31), and H. NIEDERMAYER (*Byz.-Neugr. Jahrb.*, II, 1921, 212-3). All these reviews give the work high praise.

G. FOGOLARI publishes a useful article on the *agoranomi* of Pathyris-Crocodilopolis. He gives a list of the known holders of the office, with a discussion, in which he shows that in B.C. 113 there must have been three *agoranomi* in office simultaneously. There was great activity in the office during the last quarter of the second century B.C. The official residence was Crocodilopolis till not later than 89 B.C. There seems to have been no definite time-limit to the tenure of the office. *Gli "agoranomi" di Pathyris-Crocodilopoli (Tebaide)*, in *Aegyptus*, II (1921), 327-36.

G. LUMBROSO, in two of his characteristic letters, deals (1) with the title *ἀγοραστής* found on sepulchral vases published by Merriam, citing from I. Pfeiffer, *Voyage autour du monde*, Paris, 1873, an instance of a similar official at the Chinese court, (2) with the class of *τιμωμένοι* at the Ptolemaic court, à propos of two inscriptions and three passages in the Pseudo-Aristeas. In *Aegyptus*, II (1921), 32-6.

W. OTTO follows up his previous articles on the subject of the "audience in the gate" (see *J.E.A.*, VII, 1921, 97) with a further note, in which he adds other ancient parallels (Biblical, Assyrian, and Babylonian). *Das "Tor der Audienzen"*, in *Hermes*, LVI, 1921, 104-6.

The Gnomon papyrus is a little difficult to classify, since it concerns the legal and economic spheres as well as the administrative; but it seems best to consider it in the present section. An important review of Schubart's edition, making various suggestions for readings or interpretations is that by J. C. NABER (*Museum*, Leyden, XXVII, 1920, 218-22). H. STUART JONES devoted to it his inaugural lecture as Camden Professor; and his very valuable discussion of it has appeared as a small pamphlet. He gives strong reasons for separating the office of Archiereus from that of Idiologus, at least before the Severi, and points out that there were important administrative changes (in the direction of simplification) under those Emperors. Dealing with the *res privata*, he suggests that this Department so reduced the importance of the Idios Logos that it was annexed (being now largely concerned with ecclesiastical matters) to the Department of the Archiereus; and he conjectures (p. 32 f.) that Claudius Julianus was sent to Egypt to carry through the reorganization. These are but the principal points in a lecture unusually full of stimulating suggestions. *Fresh Light on Roman Bureaucracy*. Oxford: Clarendon Press, 1920. Pp. 39. Another important article on this subject is that by TH. REINACH, who, after a brief introduction, gives

the text in full, a French translation, and a somewhat detailed commentary. *Un code fiscal de l'Égypte romaine: Le Gnomon de l'Idiologue*, in *Nouv. Rev. Hist. de Droit*, XLIII (1919), 583-636, XLIV (1920), 5-134. P. M. MEYER in his review of juristic papyri (see below, § 9, p. 100) also deals with the Gnomon (pp. 235-40). He mentions (p. 235) that there is said to be a papyrus of similar character at Turin.

FR. BILABEL, in an article on the Greek name of the modern Hibe, publishes the beginning of a papyrus found by him in 1914 during excavations carried on for the Heidelberg Academy and the Freiburg Wissenschaftliche Gesellschaft. This papyrus, found in a house at El-Hibe, shows that the name was *κώμη Ἀγκυρών*; in others the form *Ἀγκυρώνων* also occurs. Bilabel concludes that the name does not mean a place from which anchor-stones were got, as Steph. Byz. explains it, but is to be read *Ἀγκυρών* as nom. sing., i.e. "anchor-place." *Der griechische Name der Stadt El-Hibe*, in *Philologus*, LXXVII (1921), 422-5.

Reference may be made in passing to a note by G. LEFEBVRE making certain addenda to one of his previous articles on Graeco-Roman Egypt. *Correction et additions à Égypte Gréco-Romaine*, § v, in *Ann. du Serv.*, XX (1920), 249-50.

The last piece of work by LESQUIER which appeared during his life-time was a very important article on the early Ptolemaic calendar, in which he summed up the data of recent discoveries and discussions and endeavoured on their basis to make a further step towards the solution of this difficult question. Naturally, he deals mainly with the Zeno papyri and Edgar's results. (1) Dealing with the question of the double dates, he attempts to fix the approximate date of the beginning of the year—say 25 Dystros (p. 21). He thinks that the examination of the material tends to confirm the theory of the intercalation of a Peritios embolimos of 29 or 30 days every second (odd) year in the reign of Philadelphus. Under Euergetes the intercalation was probably in even years. The practice in various reigns was in fact not uniform. (2) He rejects Ferrabino's theory (*J.E.A.*, VI, 1920, 139) that the fiscal is the regnal year, contrasted with the Egyptian year. He thinks the evidence favours the hypothesis of a fiscal year beginning in Mecheir plus a regnal year beginning (say) in Dystros (for Philadelphus) plus the Egyptian *annus vagus* beginning in Thoth. Was this fiscal year Macedonian or Egyptian? Probably the latter. Many tables, illustrating the relations of the years are given, and the article is in fact of the first importance. *Les nouvelles études sur le calendrier ptolémaïque*, in *Rev. Égypt.*, II (1921), 128-64.

V. GARDTHAUSEN, in an article on Augustan chronology, discusses (1) the practice as regards the beginning of the regnal year when it fell very near the end of the Egyptian year, specially with reference to the reign of Augustus (in view of recent evidence) but also to that of Tiberius, pointing out Ptolemaic analogies; (2) the years of the *κράτος*, collecting the evidence. *Das erste ägyptische Königjahr und die Kratesis des Caesar Augustus*, in *Berl. Phil. Week.*, XL (1920), 615-24.

G. CORRADI discusses the month-names *Ῥεπαριώκος* and *Ῥεπαριώκειος*, showing (1) that they were distinct names for different months, (2) that the former was Thoth, and that the name was introduced by Domitian and died out with his *damnatio memoriae*, (3) that the latter was Pachon. *Ῥεπαριώκος εἰς Ῥεπαριώκειος*, in *Boll. di Fil. Class.*, XXVII (1920-1), 86-91.

I may conclude this section with a reference to L. BORCHARDT's work on the methods of measuring time in Ancient Egypt, on pp. 10-12 of which the author discusses *P. Oxy.* III, 470, 31 ff., the reckoning of a water-clock. He gives a translation, the text, and two photographic facsimiles. *Die Geschichte der Zeitmessung und der Uhren*, herausg. von E. VON BASSERMANN-JORDAN. Bd. I, Lief. B. *Die Altägyptische Zeitmessung*, von L. Borchardt. Berlin u. Leipzig: Verein. wiss. Verleger, 1920. Pp. xi+70. 18 plates, 25 illustrations in the text.

5. ECONOMIC AND SOCIAL HISTORY, NUMISMATICS.

In an exceedingly interesting article WILCKEN reviews the consequences, direct and indirect, of the policy of Alexander the Great on the economic and commercial history of the Nearer East. He uses the evidence of the Zeno papyri and Rostovtzeff's recent article in *J.E.A.*, VI. His article is full of interesting points and gives an admirable summary of economic history. *Alexander der Grosse und die hellenistische Wirtschaft*, in *Schmoller's Jahrb.*, XLV. 2, 349-420.

A. CALDERINI devoted his inaugural lecture for 1919-20, since published, to the question of labour in Graeco-Roman Egypt. He illustrates the conditions of labour in various spheres and traces the gradual enslavement of the worker, to the decline and eventual collapse of the ancient order. *Aspetti e problemi del lavoro secondo i documenti dei papiri*. Milan: Figli della Provvidenza, 1920. Pp. 20.

An article by F. MAROI on the taxing of manufactured articles at Alexandria is inaccessible to me. *L'imposta sui fabbricati di Alessandria al IV sec. d. Cr.*, in *Bull. Soc. Arch. Alex.*, XVIII, (1921), 36-46; see *Aegyptus*, II, 385, no. 1794.

W. L. WESTERMANN has published an article on the land registers of Western Asia to which a reference should be given here. As he remarks, these registers may usefully be compared with our Egyptian documents, because we have no examples of the *central* registers in Egypt, whereas for the Seleucid Empire these are just what we know most about. They give us the evidence in less detail but in broader outline, so that they supplement papyrological evidence. *Land Registers of Western Asia Under the Seleucids*, in *Class. Phil.*, XVI (1921), 12-9. In a later note he says that E. MEYER has called his attention to an important addition to a Laodicean document he quotes, which leads him to modify certain of his conclusions; see *ibid.*, 391-2.

The same scholar has also continued his discussion of the ἀσποχός γῆ (*J.E.A.*, VII, 1921, 100). In the second part of his article he analyzes *P. Brux.* 1 and other documents, showing that they confirm his theory. He then draws further arguments (a) from the relations between landlord and tenant, both for private and for public land, as regards ἀσποχός γῆ, (b) from the provisions regarding ἐπιτελημένη γῆ in leases of public land. Some of the later arguments are a little difficult to follow, and do not seem (if I rightly understand them) conclusive. The "Uninundated Lands" in Ptolemaic and Roman Egypt, Part II, in *Class. Phil.*, XVI (1921), 169-88.

WESTERMANN has also published an interesting article on L. Bellenus Gemellus, the well-known land-owner of *P. Fay.*, in which are many valuable remarks on agricultural matters, with some translations. *An Egyptian Farmer*, in *Univ. of Wisconsin Studies*, 3. *Class. Stud. in Honor of C. F. Smith*, 1919, 170-90.

M. C. BESTA, in an article on the fishing industry, collects the references in papyri to fishing, fishers, and fish, with brief comments. *Pesca e pescatori nell'Egitto greco-romano*, in *Aegyptus*, II (1921), 67-74.

I know only from a brief review by WESSELY (*Byz.-Neogr. Jahrb.*, II, 1921, 490) a volume (which, being in Polish, is beyond my reach) by FRANZ SMOLKA on the schools of Graeco-Roman Egypt. The title, which Wessely translates *Das griechische Schulwesen im alten Ägypten im Lichte der Papyri, Tafeln und Ostraca*, suggests that it is a valuable work, but it is to be feared that few papyrologists will be able to avail themselves of its help. Lemberg: Poln. Ges. d. Hochschulelehrer, 1921. Small 8°. Pp. 181.

HERZOG's *Bankwesen* (*J.E.A.*, VII, 1921, 96) is the subject of a very laudatory review by F. PRINGSHEIM in *Vierteljahrsschr. f. Soz.- u. Wirtschaftsgesch.*, XV, 513-21.

W. SCHUBART in a most valuable article discusses the numismatic evidence contained in *P. Edgar* 59, 58, and 5. On the first two he in the main recapitulates for German readers what Edgar had already said, but on the last goes beyond him. The document, he says, shows the effort of Philadelphus to substitute the new Imperial coinage for the old local currencies, furnishing a new illustration of the effort after unity in the Egyptian Empire. To do that Philadelphus must have felt secure in his possession of the foreign dependencies. *Die ptolemäische Reichsmünze in den ausländischen Besitzungen unter Philadelphos*, in *Z. f. Numism.*, XXXIII, 68-82.

The article, *Καὶνὸν Νόμισμα*, by A. SEGRÈ, referred to by me last year (p. 100) with a doubtful reference really appeared in *Mem. d. Acc. dei Lincei*, VS., XVI (1920), 96-114.

EV. BRECCIA catalogues a hoard of coins found in 1916 during the making of a tomb in the Armenian cemetery at Alexandria. The dates range from 70 to 260 A.D. *Un ripostiglio di monete imperiali Alessandrine*, in *Bull. Soc. Arch. d'Alex.*, N.S., IV, 230-50.

CH. DIEHL has published a useful article on Justinian's Ed. XI on the Egyptian coinage. He discusses the papyrus evidence as to the value of the solidus, with a view to discovering how far Justinian was successful in his attempts to stabilize the currency. He finds some improvement after the edict, but only to a very limited extent. *Une crise monétaire au VI^e siècle*, in *Rev. ét. gr.*, XXXII (1919), 158-66.

6. LAW.

L. WENGER has published a very interesting essay on the comparative study of law, dealing specially with the place of Roman law in relation to it, but also discussing in general its aims and limitations. His article is both readable and very suggestive; and though it is not concerned specially with papyri it does contain references to papyrology; see pp. 30-1, 40-1, 46-7. *Rechts- und Staatsphilosophie, Allgemeine Rechts- und Staatslehre: Römisches Recht und Rechtsvergleichung*, in *Arch. f. Rechtsphil.*, XIV, 1-66.

WILCKEN, in an article as readable, stimulating and acute as his articles almost always are, discusses, *inter alia*, whether the edicts of prefects were or were not valid after the term of office of the particular prefect who issued them had expired. He brings convincing evidence to show that in fact, at all events, they were—when, that is, they related to matters of permanent, not merely of temporary, significance. For other points in this article see references to it in §§ 3 and 4 above and 7 below. *Zu den Edikten*, in *Z. Sav.-St.*, XLII (1921), 124-58.

From a review by P. M. MEYER of recent publications in the domain of juristic papyrology noticed below (§ 9, p. 100) I gather that WLASSAK in an article, inaccessible to me, on the *Provincialprozedur* (*Stegsber. Wien. Ak.*, CX, 4, 1919) deals with the evidence of papyri. J. C. NABER, in an article *De Formularum Origine*, which forms section CXVI of his *Observationum* (*Mnemosyne*, N.S., XLIX, 1921, 153-71) deals (pp. 166-9) with the papyrus evidence in relation to *δικαι*. P. COLLINET discusses the Berlin papyrus published in 1912 by Mitteis and containing a report of proceedings in court. He gives the text with a commentary, in the course of which he dates the case between 468 and 477 A.D. He holds that it is a case of procedure by rescript before a special judge, and that the sentence and the subscription of the petitioner were separated by a space from the body of the document with a view to their being detached, though this was not done. [The last supposition seems very doubtful.] *Le P. Berol. Gr. Inv. No. 2745 et la procédure par rescript au V^e siècle*, in *Rev. Égypt.*, II (1922), 70-81.

Schwarz's *Urkunde* (*J.E.A.*, VII, 1921, 96) is reviewed by MITTEIS (*Z. Sav.-St.*, XLI, 1920, 320-30; laudatory, very good précis of Schwarz's argument and conclusions), E. WEISS (*Lit. Zentralbl.*, LXXII, 1921, 618-9), and P. DE FRANCISCI (*Aegyptus*, II, 1921, 370-2).

L. BLAU adduces parallels from the Aramaic papyri and from mediaeval Jewish deeds to the penalty clauses in Greek papyri. The *Conventionalstrafe* occurs already, he points out, in the former and is still found in the latter; and he maintains "dass die griechische Papyrusurkunde keine Originalschöpfung ist, sondern die Nachfolgerin der um Jahrzehnte älteren aramäisch-ägyptische Urkunde." *Die Strafklauseln der griechischen Papyrusurkunden beleuchtet durch die aramäischen Papyri und durch den Talmud*, in *Monatsschr. f. Gesch. u. Wiss. des Judentums*, LXIII (N.F. XXVII), 1919, 138-55.

Kreller's *Erbrechtliche Untersuchungen* (*J.E.A.*, VII, 1921, 96) is reviewed, with high praise, by M. SAN NICOLÒ (*Z. f. vergl. Rechtswiss.*, XXXIX, 283-95), A. B. SCHWARZ (*Z. Sav.-St.*, XLI, 1920, 340-54; to be continued; important discussion of the question as to the liability of heirs), B. KÜBLER (*Phil. Woch.*, XLI, 1921, 153-9), W. SCHEER (*Hist. Zeitschr.*, CXXIII, 3. Folge, XXVII, 1921, 485-7), and H. I. BELL (*J.E.A.*, VII, 1921, 231-2); and it is also discussed (pp. 231-5) by P. M. MEYER in his bibliographical article mentioned below (§ 9, p. 100).

I referred two years ago (*J.E.A.*, VI, 135) to an important publication by G. MÖLLER of two Demotic pre-Saitic marriage contracts, which I was then unable to see but have since had an opportunity to read. I have now to record another important work on the subject of the Egyptian marriage, by H. JUNKER. This is of a distinctly revolutionary character and necessitates (if his conclusions are correct, which I cannot but think they are) a radical revision of several current conceptions. He publishes a new contract dated in B.C. 363, and follows this up with a closely-reasoned discussion and survey of the evidence, concluding that the so-called marriage contracts were not really *Eheverträge* (establishing the marriage) but *Ehepakten* (marriage settlements, regulating the property). The so-called *Alimentationsschriften* were not contracts establishing a different (looser) form of marriage but merely a different form of deed referring to the full marriage. The deeds given by the wife to the husband do not, in these cases, prove the superior position of the wife; they were merely the counterpart of the husband's deed. Probably in earlier times the actual marriage (as opposed to the marriage settlement) was arranged verbally, not by deed; there was no "Ehevertrag." *Papyrus Lonsdorfer I: Ein Ehepakt aus der Zeit des Nektanebos*. *Stegsber. Wien. Akad.*, CXCVII, 2. Wien, 1921. Pp. 56. 1 plate.

S. SOLAZZI discusses the question whether the *tutor mulieris* was required to be present before the magistrate or to give his consent to his nomination, utilizing the evidence both of the papyri and of the legal authorities. He deals also with the *tutor impuberis*, with the question as to a woman's free choice (*optio*), and whether the usage of granting a *tutor ad actum* existed among the *peregrini*. *Il consenso del "tutor mulieris" alla sua nomina nei papiri e nei testi romani*, in *Aegyptus*, II (1921), 155-78.

A. B. SCHWARZ, in a suggestive article, calls attention to the significance of PSI. IV, 314, and shows, in connexion with *P. Hamb.* 14, that where no ἀπογραφὴ was made there was no ἐπίσταλμα. The object of such notifications, not asking for an ἐπίσταλμα, he suggests was perhaps "eine vormerkungsartige Sicherung

des auf Vornahme der angemeldeten Verfügung gerichteten Anspruchs zugunsten des präsumptiven Erwerbers." He discusses the question of *παράθεσις* and also that as to the kind of transactions in which stress was laid on the demand for an *ἐπίσταλμα*. Προσαγγελία und ἐπίσταλμα, in *Z. Sav.-St.*, XLII (1920), 273-8.

An article by S. SOLAZZI on the part played by the consul and praetor urbanus in assigning a tutor is inaccessible to me. *Console e pretore urbano nella "datio tutoris,"* in *Arch. Giurid.*, LXXXV (1921), fasc. 1; see *Aegyptus*, II, 244, no. 1456.

G. BESELER reviews G. Calogirou's *Die Arrha im Vermögensrecht in Berücksichtigung der Ostraka und Papyri* (1911), in *Byz.-Neugr. Jahrb.*, I (1920), 402-3.

F. VASSALLI reproduces Schiaparelli's text of the Latin sale in *PSI*, VI, 729, and follows it up with suggestions for restoration and interpretation. *Osservazioni sopra il contratto di vendita di un cavallo contenuto in un papiro egizio*, in *Bull. d' Ist. di Dir. Rom.*, XXXI (1921), 144-9.

A. STEINWENTER, in an article on the Solva rescript (see *J.E.A.*, VII, 1921, 98), replies to Roos's strictures (*ibid.*) on his reading, which would connect the edict with the *bonorum cessio*, adduces further evidence in its favour, appends some general remarks on the *bonorum cessio*, and criticizes Roos's *substitutio*. *Zum Reskript von Solva*, in *Wiener Studien*, XLII (1920/1), 88-90.

S. SOLAZZI discusses the interesting Hamburg papyrus published by P. M. Meyer under the title *Indemnitätsversprechen eines Altersvormundes an seinen Mitvormund* (see *J.E.A.*, VI, 132). He concludes that the motive for the transaction was a doubt in the guardian's mind as to the validity of a payment by a guardian to himself. *Pagamento a se medesimo in un papiro d' Amburgo*, in *Aegyptus*, II (1921), 289-302.

A. STEINWENTER has published a very interesting article on the class of Coptic deeds by which children were made over to monasteries. He concludes that these transactions were religious oblations, not mere economic transactions, but that they were encouraged in part by economic distress. But whereas the western oblates became monks these children were enslaved. There was probably a connexion between Egyptian and western practice, though the results were different; but Steinwenter prefers not to answer the question why this difference arose. *Kinderschenkungen an Koptische Klöster*, in *Z. Sav.-St., Kan. Abt.*, XLII (1921), 175-207.

7. PALAEOGRAPHY AND DIPLOMATIC.

In this section precedence is claimed by the new edition of SCHUBART's invaluable monograph on the ancient book. He incorporates the new material which has come to light since the first edition appeared, and the whole volume has been drastically revised, many passages being practically re-written. A new feature is an appendix of notes and references. There is an index, prepared by Fran Schubart. *Das Buch bei den Griechen und Römern*. 2te umgearbeitete Auflage. 39 Abbildungen. (*Handbücher der Staatlichen Museen zu Berlin*.) Berlin u. Leipzig: Verein. wiss. Verleger, 1921. Pp. i+194.

D. BASSI calls attention to some unpublished MS. illustrations of Herculaneum papyri in the possession of the Officina dei Papiri Ercolanesi. They are by S. CIRILLO, G. GENOVESI, N. LUCIGNANO, G. PARASCANDOLO, and B. QUARANTA. *Illustrazioni inedite di Papiri Ercolanesi*, in *Aegyptus*, II (1921), 55-66.

WILCKEN devoted his *Antrittsrede* in the Berlin Academy to the subject of ancient diplomatic (*Urkundenlehre*). He laid stress on the need for the "Schaffung einer antiken Urkundenlehre als einer historischen Hilfswissenschaft," which is, he said, a "notwendiges Desiderat der Zukunft." In *Stugsber. Preuss. Ak.*, 1921, XXXIII, 482-7. Reference may in this connexion be made once more to his article on the edicts (above, § 6, p. 97), in the first part of which he deals with the various technical terms used of this class of document.

L. WENGER devotes a useful article to the question of seals. It is founded on an article written by him, *s.v.* "Signum," for Pauly-Wissowa-Kroll, from which he has digested the portions of most interest for jurists. He gives an interesting account of the history of the practice of sealing documents, and of the various methods employed and objects pursued in the Graeco-Roman world. He leaves it an open question whether there was a direct or any connexion between the Babylonian and Assyrian practice and that of Graeco-Roman times. *Über Stempel und Siegel*, in *Z. Sav.-St.*, XLII (1921), 611-38.

A monograph by J. HASEBROEK on the descriptions of parties to contracts, which is probably of some importance, is not at present accessible to me. *Das Signalement in den Papyrusurkunden*. Pap.-Inst. in Heidelberg, No. 3. Pp. iii+39. 1921. Mk. 12. See *Aegyptus*, II, 385, no. 1790. I have two other items referring to the same subject. One is a summary of conclusions reached by A. CALDARA in a thesis on *I connotati personali nei documenti nell' Egitto greco-romano* presented to the Faculty of Milan and to appear later in

the series of monographs issued by the direction of *Aegyptus*. Signorina Caldara thinks that the practice was introduced by the Ptolemies, that the descriptions dwindled and grew vaguer, and at last disappeared under the Romans. In *Aegyptus*, II (1921), 110-12.

The other article is one by A. CALDERINI on the statements of age in such descriptions. He has examined all the instances up to the fourth century. He shows (what indeed was generally known, but Calderini's detailed investigation reinforces the fact) that these data are often inexact. In the Ptolemaic period the prevailing tendency was to round off the ages to multiples of 5, a practice which may or may not point to a quinquennial census, though he is rather sceptical as to Revillout's suggestion of this. In the Roman period there was greater exactness, and the quinquennial reckoning was much rarer. But even here instances of rough reckoning occur. I may add to his evidence that of P. Lond. ined. Inv. No. 2228, where in two documents copied on the same sheet of papyrus the same person (a lady, be it noted!) is described in both the eighth and the eleventh years of Hadrian as 35 years old. *L'indicazione dell'età individuale nei documenti dell'Egitto greco-romano*, in *Rass. ital. di lingue e lett. class.*, II (1920), 317-25.

8. GRAMMAR AND LEXICOGRAPHY.

CHR. DÖTTLING has published a monograph on the Greek declension of Latin nouns, as seen in inscriptions and papyri. *Die Flexionsformen lateinischer Nomina in den griechischen Papyri und Inschriften*. Diss. Basel. Lausanne: La Concorde, 1920. Pp. xvi + 124.

J. R. MANTEY collects instances from recently published texts, including papyri, of the various uses of *oδv*. *Newly discovered Meanings for oδv*, in *Expositor*, 8 Ser., 1921, 205-14. A. CASTIGLIONI, continuing in another periodical her article (see *J.E.A.*, VII, 1921, 102) on the nomenclature of vases in Greek papyri, deals with the words ἀγγεῖον, σίκος, κούφος (sic; why not κούφον?), λάγνος, ληνός, χύτρα. She cites both literary and papyrological references. *Nuovi contributi alla nomenclatura dei vasi nei papiri greci*, in *Aegyptus*, II (1921), 43-54. In the article by H. I. BELL on the *Thyestes* of Sophocles referred to above (§ 1, p. 85) there is a discussion of the now rather large class of neuter plurals in -τρα (they denote, not implements, as Wilcken took them, but costs of work). G. GHEDINI argues that in *P. Oxy.* 1492 τόπος is a term taken by the Christians from pagan usage and denoting "il luogo delle riunioni cristiane, il tempio, la comunità cristiana stessa." So too perhaps in *BGU.* 27, which may therefore, he suggests, be a Christian, not a pagan, letter, as Wilcken took it. Ο ΤΟΠΟΣ in *P. Oxy.* 1492, in *Aegyptus*, II (1921), 337-8. Finally, G. LUMBROSO, in one of his letters to Calderini, calls attention to the analogy of *P. Oxy.* 1271 (A.D. 346), in its use of ἀπαλῶσαι, to a passage in Polybius's narrative of Cleomenes. *Aegyptus*, II, 191.

9. GENERAL ARTICLES AND BIBLIOGRAPHY.

The first volume of the *Serie di divulgazione* of the supplements to *Aegyptus* is a readable popular account, well adapted to its purpose of arousing interest in the subject, of papyrology by A. CALDERINI. Many quotations from the more interesting papyri are given, and there are good illustrations. *La primavera di una scienza nuova*. Milano, 1921. Pp. iv + 68. 11 plates. A brief general article by R. SCHWINN may also be referred to for the sake of completeness, but it is not likely to be of any value to the specialist. *The Egyptian Papyri*, in *Ecol. Rev.*, LX (1919), 501-11. An article by A. OTTOLINI entitled *Studi italiani di Egittologia e di Papirologia*, the exact reference of which I can only guess at (recent volumes of *PSI*, *Aegyptus*?), is inaccessible to me (in *Libri del Giorno*, IV, 1921, 410; see *Aegyptus*, II, 374, no. 1604).

M. Norsa gives an account, intended specially for classical scholars who have no special knowledge of papyrology, of the Florentine collection of Greek papyri, dealing largely with the Zeno archive, of several texts from which she gives translations (*La collezione fiorentina di papiri greci e latini*, in *Atene e Roma*, N.S., II, 1921, 202-7); and A. CALDERINI has published an interesting paper, his inaugural lecture for the season 1921-2, of a collection of papyri recently acquired by Milan. After a preliminary survey of the other Egyptian antiquities to be found in various places at Milan, he proceeds to describe the more important texts in the new collection. They include one literary papyrus, probably of the fifth century, a bilingual text containing Virgil, *Aen.* I in Latin and Greek, an interesting document from Pathyris, dated B.C. 105, a group of first century papyri relating to a certain Harthotes of Theadelphia and his family, and an apparently rather important papyrus containing a report of proceedings in the senate of Oxyrhynchus. These papyri are to be published as Parts I and II of the *Serie scientifica* of the Supplements to *Aegyptus*. *I "Papiri Milanesi" ed altre antichità egizie in Milano*. Milano: Figli della Provvidenza, 1922. Pp. 19.

P. M. MEYER has begun a valuable bibliography of juristic papyri and publications relating to them. Arranged by sections, on the lines of his *Juristische Papyri*, and taking the single items in order of subject, it is by no means a mere catalogue but includes really constructive criticisms of many of the publications noticed, and I have already referred separately to several of the more important reviews contained in the first instalment. *Neue juristische Papyrus-Urkunden und Literatur*, in *Z. f. vergl. Rechtsw.*, xxxix, 220-82. A new and very useful feature of *Aegyptus*, which appears in vol. II, is a list of "Testi recentemente pubblicati," giving, in addition to references to easily accessible texts, full texts of those which appear in less accessible or less obvious publications. H. WINDISCH has published a review of English and American literature on the New Testament in the years 1914-20, which includes some papyrological items. *Englisch-amerikanische Literatur zum Neuen Testament in den Jahren 1914-20*, in *Z. d. neutest. Wiss.*, xx (1921), 69-90, 147-65.

10. MISCELLANEOUS AND PERSONAL

The Egypt Exploration Society is this year celebrating the twenty-fifth anniversary of the foundation of the Graeco-Roman Branch. In connexion with this event, two special lectures have been arranged. One by Prof. HUNT, on "Twenty-Five Years of Papyrology," a review of the work done by the Graeco-Roman Branch, was delivered on Feb. 23; another by Sir FREDERIC KENYON is to be given later in the year. The British Museum, which has benefited so greatly by donations from the Society, has arranged a special exhibition of papyri presented by it, to open on March 1. A guide to this exhibition is being published¹.

America is now entering whole-heartedly into the field of papyrology. In the autumn of 1920 Prof. KELSEY of Michigan took back with him a really splendid collection of papyri purchased by him for the Universities of Michigan and Wisconsin. On Dec. 29, 1921, in connexion with the twenty-third General Meeting of the Archaeological Institute of America at Michigan, an exhibition of selected papyri from the Michigan collection was held. Last year a further large purchase of papyri was effected. This was a joint purchase by a syndicate of buyers, consisting of the Universities of Michigan, Cornell, and Princeton, the Library of Geneva, and the British Museum. Later in the year a rather large and unusually well-preserved collection of papyri was acquired, through the agency of the British Museum, for America. This consists of the archives of a village *γραφειον*—or rather of two village *γραφεία*—of the first half of the first century, and includes a very long and splendidly preserved roll containing a year's *ἀναγραφὴ* of the *γραφειον*. The collection, which is not merely a valuable addition to our stock of first century papyri but may well prove epoch-making for our knowledge of the routine and practice in the *γραφεία*, has been divided among various purchasers. A number of the papyri, including the long roll just referred to, are at Michigan.

In addition to the papyri received as its share of the joint purchase mentioned above, the British Museum last year acquired a collection consisting partly of papyri of the Roman period but mainly of documents from the archive of Zeno. The letters in this lot are mostly, but not entirely, more or less fragmentary, but there are also two or three long and well-preserved accounts. The considerable purchases of Ptolemaic papyri made in recent years by the British Museum will probably lead to a modification of the plans for future publication; Volume VI of the Museum Catalogue is likely to consist entirely of Ptolemaic texts.

An interesting announcement was made by A. DEISSMANN in the January number (p. 147), 1921, of his *Evangelischer Wochenbrief*. It appears that during the war the Germans (Father H. HAENSLER, O.S.B., was the actual discoverer) found at Hafir el-'Audsche (S.W. of Beersheba) two papyrus documents of the third century. These have been read by SCHUBART, and their publication will be eagerly awaited. The find is not only of interest as the first discovery of papyri outside of Egypt, except the Herculaneum rolls, but it opens up possibilities for future exploration.

All papyrologists will hear with pleasure that the future of the *Archiv*, which was seriously threatened by the financial position of Germany, is now assured. Heft 1 of Vol. VII is in preparation, and will probably appear this year. Another welcome announcement is that WILCKEN's long-expected *UPZ.* is at last being printed, and the first fascicule may be out in the spring.

A pupil of GREENFELL's, J. G. TAIT, is preparing an edition of the ostraca in the Bodleian. This publication promises to be of quite outstanding importance, and his work on it has enabled Mr Tait to make various corrections in the texts of Wilcken's *Ostraka* and other publications.

¹ It appeared on March 1: *Guide to a Special Exhibition of Greek and Latin Papyri presented to the British Museum by the Egypt Exploration Fund, 1900-1914*. Preface by Sir FREDERIC KENYON. Pp. 20. 1 Plate. Price 1s.

I learn with regret from STEINWENTER that OERTZ's projected *Preis- und Lohnstatistik* of Graeco-Roman Egypt "ins Stocken geraten ist." It is much to be hoped that this is only temporary.

The edition of the Wadi Sarga ostraca and vellum and papyrus fragments by CRUM and the present writer is at present passing through the press, and should be out this summer.

Papyrology has suffered some grievous losses in the past year. The death of Prof. NICOLE did not indeed involve the withdrawal of an active worker from our field, for Nicole's work was done, but it will have been heard of with sincere regret by all who knew of his activities in the sphere of papyrology and classical studies. An obituary notice of him by his successor at Geneva, V. MARTIN, appeared in the *Journal de Genève*, 18 Apr., 1921. A direct and an irreparable loss to our study was, on the contrary, the death of that brilliant scholar and most attractive personality, J. LESQUIER. He had for years struggled against the fatal disease (tuberculosis) to which he finally succumbed; and the really heroic courage and unconquerable spirit with which he faced his misfortunes and continued his work amid enormous difficulties will not be forgotten by those privileged to be numbered among his friends. Obituary notices have been published by A. CALDERINI (*Aegyptus*, II, 1921, 339-43) and H. I. BELL (*J.E.A.*, VII, 1921, 218-20); to which references I must add one to the report of the funeral, with speeches by JOUGUET and others, in *Le Lixovien*, 6 July, 1921.

Almost at the close of the year papyrology suffered a further blow in the death of that veteran of juristic studies, L. MITTEIS. This news I learn from Prof. WENGER and Mr CRUM; I am unable to refer to any obituary notice.

I cannot let this opportunity pass without expressing the very sincere regret which all papyrologists must feel for the incapacitating illness of Prof. GRENPELL and the earnest hope that he may soon be restored to health.

Finally, I may mention that ZUCKER's successor at Tübingen was not, as I stated last year (*J.E.A.*, VII, 104), W. WEBER (who really succeeded KORNEMANN), but F. PFLISTER.

NOTES AND NEWS

MR. WOOLLEY has returned home with the spoils of his excavation at Tell el-Amarna, filling forty-seven cases. It is intended that the annual Exhibition should be opened earlier than last year, if possible about June 15.

The fifteenth volume of *Oxyrhynchus Papyri* was issued a few weeks ago, thanks to the exertions of Professor Hunt; on him has fallen almost all the burden of its preparation owing to the prolonged and incapacitating illness of his colleague Professor Grenfell. It contains a wonderful collection of theological and literary texts, the latter including many fragments of the elusive Sappho. Its publication sets free another large series of papyri and the arrangements for their distribution are now nearly complete.

Dr H. R. Hall communicates the following note from the British Museum:—

"To commemorate the twenty-fifth anniversary of the founding of the Graeco-Roman branch of the Society a special exhibition has been arranged at the British Museum of papyri presented to the Trustees by the Society since the foundation of the branch. A catalogue of the exhibition, prepared by Mr H. I. Bell, has been issued by the society in conjunction with the Museum authorities, and is on sale at the Museum. The exhibition is placed in the Manuscript Saloon between the Grenville and King's Libraries, to the right from the Entrance Hall. It is proposed to keep it open until the autumn, and it is hoped that many of our members and readers will avail themselves of this opportunity to see collected together the most important and interesting papyri presented by the Society to the nation. The majority of the papyri shown come, of course, from the Society's excavations at Behnesâ (*Oxyrhynchus*), directed for so many years by Drs Grenfell and Hunt. Others are from the Fayyûm and from el-Hibeh. The space available for the exhibition being limited, only "a selection from a selection" can be shown, but this selection is a representative one and the papyri exhibited are very various in character and appearance, all subjects and all types of hands being represented. A Homer MS. of palaeographical interest represents the work of "the Poet"; lyric poetry is represented by Sappho, Pindar, and Bacchylides; while other branches of poetry appear in codices of Sophocles and Kerkidas. In the sphere of philosophy there is an early commentary on the *Topics* of Aristotle, and history is represented by a fragment of a History of Greece by an unknown author, possibly Ephorus, which is known as the *Hellenica Oxyrhynchia*. The fragment deals with the years 397-396 B.C., and dates from the end of the second century A.D. An epitome of Livy, of the end of the third century, is a good specimen both of Latin historical literature and palaeography; also there is a life of Alcibiades and a list of Olympian victors. Then there are the famous *Sayings of Jesus* and an interesting fragment of the "Old Latin" version of *Genesis*. So much for literary fragments: the non-literary documents are also of great interest, especially those illustrating the extraordinarily complex fiscal arrangements of Ptolemaic and Roman Egypt; the tax-receipts, custom-receipts, and so forth remind us that the same problems confronted governments then as now and had to be dealt with in similar ways. One papyrus even shows us the "Treasury Axe" at work in an attempt to

economise by reduction of staff. Then there are the public announcements, the processes of law and the private letters. The exhibition is a most apposite commemoration, and the Society owes many thanks to Sir Frederic Kenyon, Mr Gilson, and Mr Bell for its inception and arrangement."

During last winter the following lectures have been given for the Society at Burlington House. On October 27 "Early relations of Egypt, Babylonia and Syria," by Professor Percy Newberry, O.B.E.; on December 2 "Egypt the Cradle of Civilisation," by Professor Elliot Smith, F.R.S.; on January 24 "A new Chapter in the History of Egyptian Art," by Dr Aylward M. Blackman; on February 23 "Twenty-five years of Papyrology," by Professor A. S. Hunt, F.B.A. On May 2 Sir Frederick Kenyon will lecture on "The Library of an Oxyrhynchian Greek." Dr Blackman's lecture is printed in *Discovery* for February 1921, and Professor Newberry's is to appear in our next number.

On March 14 Dr H. R. Hall gave a lecture at Burlington House on the British Museum Excavations in Babylonia, 1919. He showed slides illustrating his work at Ur "of the Chaldees," at Abu Shahrein (the ancient Eridu) and at Tell 'Obeid, a new site discovered by him about four miles west of Ur. He described specially the prehistoric pottery from Shahrein and 'Obeid, of the same type as that found by de Morgan at Susa and Tépé Musyān and by Pézard at Bushire, and of the same early date (before 3500 B.C.), and the remarkable find of copper heads of lions, bulls, etc., of somewhat later date (c. 3000 B.C.), discovered by him at 'Obeid, which are among the finest examples of early Sumerian art yet brought to this country. In the pottery he had found interesting resemblances to Egyptian stone vase forms of the archaic period, although there was no resemblance between the prehistoric wares of the two countries and only a superficial and occasional one in ceramic decoration. He showed the identity in type of maceheads found at 'Obeid with Old Kingdom Egyptian maceheads, and pointed out the close resemblance of the technique of the copper figures to that of the VIth Dynasty statues of Pepi and his son from Hierakonpolis. In both cases the bodies were formed of hammered metal plates nailed to a wooden block or *dme*. The heads of the Sumerian figures were, apparently, cast, which is the more remarkable, since they were pure copper and therefore difficult to cast. The metal was reinforced within with clay and bitumen, like the idol in the Book of Daniel, that was part of brass and part of clay. This seemed a more probable explanation than that they were made by the process of beating in on a bitumen model which remained. Dr Hall suggested that a fresh analysis of the metal of the Pepi statue taken from the figure itself, if Dr Mosso would make it, might give a different result from the previous one, and show that the Hierakonpolis figures were really copper, like those from 'Obeid. He illustrated the general analogy of the two finds at Kom el-Ahmar and el-'Obeid, in that both were apparently *favissae*, hoards or collections of objects thrust anyhow and piled on top of one another in a pit. At el-'Obeid this was due to a later king, Dungi (c. 2300 B.C.), who built a brick platform of his own on top of the sacred figures of an earlier age, treading them down into the mud, so to speak, in order to do so. An article by Dr Hall on these finds, with special reference to Egyptian connections, will appear if possible in the next number of the *Journal*.

The Library of the Society continues to grow. Amongst recent additions is the Second Part of *Carchemish* by Mr Woolley, presented by the Trustees of the British Museum. Several British and foreign Journals are taken in regularly. Any books in the library can

be consulted during office hours, and members who are unable to come during those hours can have a special extension of them arranged: also certain books can be taken out by members.

It was early in 1822 that Champollion after many false starts and imperfect leads obtained a clue which thenceforth enabled him to pursue the decipherment of hieroglyphics with amazingly rapid and uninterrupted success for ten years until his early death. The centenary was honoured by Professor Erman who laid before the Berlin Academy in January an admirable sketch (*Die Entzifferung Der Hieroglyphen*) of the course of decipherment from the eighteenth century down to the death of Champollion. Of the Frenchman's predecessors, Thomas Young, the distinguished physicist, was the most effective. The *Literary Supplement* of the "Times" on March 2 devoted a leading article to the "Centenary of Egyptology," which was evidently the outcome of careful study of the sources of information. The centenary of Champollion's discovery coincides with that of the foundation of the Société Asiatique of Paris, which will celebrate the two events together from July 10 to 13, the President of the Republic taking part in the proceedings.

Champollion showed no undue haste in publishing his ever widening discoveries. It was not till Sept. 27 that he revealed a first series of them in a convincing argument before the Académie des Inscriptions, presenting to that learned body a long list of cartouches of Macedonian rulers, Ptolemies and Roman Emperors duly identified, in the form of a letter addressed to its Secretary, M. Dacier. This is the date selected for celebration by the École Pratique des Hautes Études.

Acting for the École, MM. Moret and Sottas (their colleague M. Weill is unfortunately prevented by illness from taking an active part) are arranging for a commemorative publication. The first appeal for articles was made to the Egyptologists of French-speaking countries—France, Belgium and Switzerland—and the reply being unanimously favourable the scheme has been enlarged to include a second volume of articles in other languages, from America, Denmark, England, Holland, Italy, Norway, Russia and Sweden. The tribute to the great Founder of Egyptology will be wide and ungrudging.

Some time ago Mr Fisher made the interesting discovery at Beisân, the ancient Bethshan (Scythopolis), of an ancient Egyptian stela. Dr Gardiner, to whom a squeeze of the much worn sculpture was sent, detects upon it traces of a cartouche, apparently of Sethos I, the father of Rameses II.

A similar stela is reported to have been discovered at Byblos, the modern Jebel, on the Phoenician coast. It is known that from remote times this port, if not an Egyptian colony, was at any rate much frequented by sea-going vessels from Egypt in quest of its cedar trees and spruce firs for ship-building and the coffins, furniture and masts of the Egyptian tombs, great houses and temples. A systematic exploration of the site by the French began this winter. M. Montet commenced work on the 20th October, and according to brief telegrams published by the Académie des Inscriptions has already found in the ruins of an Egyptian temple several statues and many alabaster vases some inscribed with the names of Mencheres (Dyn. IV) and Unis (Dyn. V).

Further north, the great city of Carchemish, besides a rich harvest of Hittite inscriptions and sculptures, has already yielded to the English explorers traces of its brief occupation by Pharaoh-Necho who took over the city from the Assyrians, and Pharaoh-Hophra who lost it to Nebuchadnezzar II at Babylon. It is to be hoped that it will not

be long before the political situation will enable Mr Woolley to resume his profoundly interesting work there for the British Museum.

The *Annual Report* of the Metropolitan Museum of Art for 1921 makes an interesting statement in regard to the Department of Egyptian Art which we venture to quote in full. "The Department has found it possible in the years since the war once again to carry forward its plans for the publication of its work both in the field and here at home. In the earlier years of its history, with the demands on its staff—both in building up its programs of field-work and in installing its rapidly growing collections year by year, in the galleries where they are now exhibited—adequate time could not be found to keep the publication of its results up to date. Gradually however these successive steps in departmental development have been completed and the process of relieving members of its staff in turn from active participation in field-duties has lately become possible, in order that the results which their work has produced may be made ready for the press. At the present time, two folio volumes in the "Theban Tomb Series" which is being issued under the Robb de Peyster Tytus Memorial Fund are now sufficiently advanced in the printing to ensure their appearance this spring, while two other volumes are to go to the printers next summer. In the "Expedition Series" one of two volumes dealing with the excavation of the Monastery of Epiphanius at Thebes and the important data derived from it as to life in Thebes in the seventh century A.D. is now going through the press. For publication in the same series also, two volumes are now ready for the press, embodying the results of an extended study into the history of the Monasteries of the Wady'n Natrun, carried out by a branch of the Expedition over a number of years. A further volume now well advanced in preparation records the results of excavation carried out by the Expedition in cemeteries of the XVIIth dynasty at Thebes."

The splendid exhibition of Egyptian antiquities held last year at the Burlington Fine Arts Club caused an unexampled demand for the illustrated catalogue by Professor Newberry and Dr Hall. We had hoped to chronicle its appearance in the present number of the "Journal"; it has not yet arrived but we understand that the delay is only temporary.

Professor Breasted is at work on the coffin texts (Book of the Dead) of the Middle Kingdom in collaboration with M. Lacau and Dr Gardiner. This powerful trio hope to get to work next winter on the great collection of Middle Kingdom coffins in the Cairo Museum.

Mrs C. R. Williams is preparing a Catalogue of the Abbott collection belonging to the New York Historical Society. The first part should be ready this year, and will contain an account of the objects in gold and silver including two celebrated pieces, "The Cheops Ring" and the "Menes Necklace."

A collection of the late Sir Armand Ruffer's papers entitled *Studies in the Palaeopathology of Egypt* will be especially welcome to those who are interested in ancient medicine and the history of disease. It contains many fine plates and includes a biographical sketch of the author and a bibliography of his writings.

A new edition of Erman's famous work *Ägypten* is being prepared by Professor Ranke of Heidelberg and should appear in the course of the year. The original edition, now nearly forty years old, is well known in England through Lady Tirard's translation, entitled *Life in Ancient Egypt*.

M. Dévaud, of Fribourg in Switzerland, hopes this year to issue the translation and commentary to his edition of the texts of the Instructions of Ptahhotp; also an edition of the Scala Magna, the Coptic-Arabic Dictionary made in the thirteenth century; of this very important source for dictionary-makers there exists at present only a primitive edition of the seventeenth century by that prodigiously learned but somewhat untrustworthy Jesuit Father, Athanasius Kircher. He is further compiling a list of the Coptic words of which the origin in the ancient language has been established with references to the literature of the discovery for each.

Dr Hopfner of Prague, the author of a work on Greco-Egyptian Magic of which the first volume is reviewed below, hopes that the second volume containing the Greek texts will be published at the end of this year. Meanwhile he is seeing through the press a translation of IAMBlichus, *De Mysteriis Aegyptiorum*, of which no German version as yet exists in print. Yet another volume is shortly to be expected from him, namely, an exhaustive collection of *loci classici* for Egyptian religion in the *Fontes* published at Bonn under the editorship of Professor Clemen.

A fine monograph has just been published on the Church of St Barbara in Old Cairo, by Signor Patricolo, architect-in-chief to the Committee of Conservation of the Monuments of Arab Art, and Professor Monneret de Villard of Milan. The same firm, Fratelli Alinari in Florence, is bringing out two works on Coptic Art by Grüneisen, *Les Caractéristiques de l'Art Copte* and *Les Évangiles Copte-Arabs du XII^e au XIII^e Siècle*, which were originally planned to appear under the auspices of the Russian Imperial Institute.

A telegram from Cairo dated March 27 to the *Times* records the death of Naum Bey Shukair, director of the Historical Section of the Sudan Government. We take the liberty of quoting the following notice which was appended to the telegram:

"Naum Bey Shukair accompanied the Gordon Relief Force and also served under Lord Kitchener and Sir Reginald Wingate. He was well-known as an expert on Sinai, of which he wrote a history, and his intimate knowledge of that country enabled him to render invaluable assistance in the Palestine campaign. He also wrote a history of the Sudan, and at the time of his death was completing a history of Arabia, on which he was a recognized authority. In him the British Government and the Sudan lose a most trusted and useful servant."

"Naum Shoucair Bey's *History of the Sudan*" (in Arabic) records many interesting particulars concerning that country for some centuries back from native sources, and in Sir Wallis Budge's *History* is constantly quoted as the principal authority for these more recent periods.

Professor Boylan, of the National University of Ireland, has published an important study of *Thoth, the Hermes of Egypt*. We welcome the appearance of an Irishman in the field of Egyptology, the first since Edward Hincks who is reckoned among the early pioneers.

Gustav Fock of Leipzig offers for sale as a whole the Egyptological library of Professor Steindorff, the well-known Coptic scholar and editor of the *Zeitschrift für Ägyptische Sprache*. For the books, comprising most of the standard works published down to the beginning of the war and a vast number of pamphlets, together with a small collection of antiquities, the price asked is £1100.

NOTICES OF RECENT PUBLICATIONS

Beschreibung der Aegyptischen Sammlung des Niederländischen Reichsmuseums der Altertümer in Leiden, xi: *Mumiensärge des Neuen Reiches, Vierte Serie*. By Dr P. A. A. BOESER. 8 pp. 15 photographic plates. Haag, Nijhoff, 1920. Price, 25 Gulden.

The Government of the Netherlands was early in the field to form a National collection of Egyptian antiquities. The foundation was laid in 1825 by purchases at the sale of Henry Salt's collection in London; two entire collections of moderate size were added in 1826 and two years later the highly important collection made by Signor Anastasy, the Danish Consul-General at Alexandria. Since those earliest days the growth has been slow. For some years there was no place in which the accumulated treasures could be housed. At length a substantial building was acquired, and in the summer of 1838 the Museum was opened to the public. Meanwhile Leemans, one of the earliest followers of Champollion, had succeeded to Reuven's, the first custodian, in 1835, and was destined to preside over the museum for no less than fifty-six years. Not only were the antiquities carefully classified in the new galleries and a useful guide published, but, wondrous to relate, a systematic publication was begun in 1839 which in the course of Leemans' long life gave to the outside world of scholars almost the entire contents of the museum in stately volumes of coloured and outline drawings. For no other large collection is such a record to be found except the vast Cairo catalogue, which was not commenced till 1904, more than sixty years after the Leyden *Monuments*. It was a wonderful enterprise and of high value to students of Egyptian antiquities, inscriptions and papyri.

Leemans died in 1891 and was succeeded by Pleyte, who was followed in 1903 by Dr Boeser, the present custodian. Under his rule there has been a thorough reorganization of the collection resulting in a particularly clear and admirable display of its treasures in the best light. The old method of publication, remarkable though it was for the time, was through the medium of somewhat inartistic and coarse drawings which often contrast strangely with the fine workmanship of the originals; Dr Boeser, first a directorial assistant in the museum of antiquities under the direction of Dr Holwerda, and then independently as keeper of the Egyptian section, inaugurated a new system of publication in which the fullest advantage was taken of photography. In 1905 the first volumes of this character reproduced an important demotic papyrus of moral sayings, and, in a very large *format*, the whole of the monuments of the Old Empire including a mastaba-chapel and some very early and remarkable statues. They have been followed since 1908 by annual portfolios of convenient size, each containing a number of photographic plates of the finest quality with a few pages of concise description. By 1915 the statues, stelae, sculptured slabs, shrines and other substantial monuments in stone had been completely published.

The museum possesses a number of exceptionally fine wooden coffins and cartonnages—stuccoed, painted and then varnished—dating from the New Kingdom or later, and these were chosen for the continuation of the series. The present volume forms the fourth instalment of these coffins. In it eight are described, all from the Anastasy collection. Twelve plates are devoted to the coffin of the Theban priest 'Ankhaf[n]khons, the lid, back, sides and interior of which are covered with symbolic representations, inscriptions and scenes from the Book of "That which is in the Underworld (Tei)," finely executed. For the details here, as often elsewhere, it is necessary to compare the old copies in Leemans' publication, which also offers a sample of the colouring. Next come three nested coffins of Pnehasi (Phinehas), a priest with many titles, son of Zekhonsef[onkh]. These are fully represented in the old publication together with Phinehas' canopic vases and the portable case in which the vases were put; a photographic plate in the new series however is devoted to the neatly decorated mummy-cartonnage. The last two plates represent the cover of the inner coffin and the mummy-cartonnage of a woman, Ta-choire(?), whose two coffins also are preserved in the museum. Neither of these had been published before. Visitors to the charming and old-fashioned town of Leyden should not fail to spare a day for the examination of the Egyptian collection.

F. L. L. GRIFFITH.

Tylissos à l'époque minoenne: étude de préhistoire crétoise. By JOSEPH HAZZIDAKIS. Paris: Geuthner, 1921. Pp. 90; 10 pll., 48 figs. Price 25 francs.

Ten years ago the distinguished director of the Candia Museum, Dr Joseph Hazzidakis, published in the *Εφημερίς Ἀρχαιολογική* an account of his very successful and interesting excavations at Tylissos in Crete. This account was of course in Greek. Naturally this fact would cause no difficulty to English scholars and archaeologists of public school and university training, and there has rarely been any question of translating the work of Greek archaeologists into English. The learned public best informed on Cretan matters, namely the British and American, was adequately provided with the accounts of the Greek writers themselves. But in France there seems to be less familiarity with Greek than with Latin, and Dr Hazzidakis has thought it well to issue a translation into French of his work on Tylissos, in order that the French educated public, less well informed in this particular branch of knowledge perhaps than the British, in spite of the admirable *œuvres de vulgarisation* of M. Dussaud, might learn something of his very considerable discoveries. It is obvious too that, though German may be the "language of archaeology" (it has a serious rival in this *métier* nowadays in English), French commands a wider educated (though not specialist) public than any other language, and the school-trained familiarity with Greek which we find in England and in Germany and in a less degree in America is, after all, peculiar to those countries. Dr Hazzidakis was therefore no doubt well advised in translating his work, a task in which he has had the help of a French archaeological visitor to Crete, M. Franchet. Whether, however, he was equally well advised in permitting the translator to add notes recording his disagreement with the author on various points about which the latter may be presumed to be the better informed may be doubted. Also, M. Franchet's introduction was superfluous. Dr Hazzidakis does not need to be introduced to us by M. Franchet, whose criticisms of Sir Arthur Evans's work at Knossos, are based only, as he says himself, on a three months' visit to Crete. M. Franchet proposes a new terminology for Cretan periods: he would call Evans's E.M. I and II periods "Aeneolithic," E.M. III and M.M. I "Bronze I," M.M. II and beginning of M.M. III "Bronze II"; end of M.M. III, L.M. I and II, "Bronze III"; and L.M. III "Bronze IV." Why not, if it so pleases him? Nobody denies that E.M. Cretans lived in the chalcolithic period, or that M.M. and L.M. belonged to the Bronze Age, and the statement that "ma nouvelle chronologie crétoise" prefers to call the "Époque géométrique" (apparently regarded as an Evansian term) "1^{re} Age du Fer" is curious. What else has it ever been supposed to be? M. Franchet is discovering nothing new here, and the solution of his doubts of and disagreements with "M. Evans" about the continuity of M.M. III, and so forth, may safely be left to the latter. Probably M. Franchet's divergences are not so important as he thinks. For more detailed criticism of his attitude towards the British excavators the reader may be referred to the excellent review of his *Rapport sur une Mission en Crète et en Égypte* which appeared in the *Journal of Hellenic Studies*, XXXVIII (1918), p. 203. In this he was quite sufficiently, yet good-humouredly, rebuked for his odd ideas and somewhat discourteous statements about the work at Knossos, while at the same time the fullest credit was given him for the originality and interest of the observations which, as a practical student of such matters in France, he was able to make as to probable ancient technical processes of pottery-making, in Egypt as well as in Crete. For these archaeologists are much indebted to him. When he states, however, that the excavations of Dr Hazzidakis "sont, à mon avis, les plus importantes qui ont été faites jusqu'ici en Crète, non pas au point de vue de la valeur intrinsèque des objets trouvés, mais à celui de leur documentaire," he shows that he has little sense of proportion in general archaeological matters, and unjustly minimizes not only the work at Knossos, but that at Gournià and elsewhere on the Hierapetra isthmus, where the greatest possible attention has always been paid to the observation and recording of everything found, by (to use M. Franchet's own words) "la méthode rigoureuse qui a permis aux auteurs d'établir péremptoirement des divisions chronologiques s'appuyant sur des faits, à l'exclusion de toute hypothèse," which he ascribes to Dr Hazzidakis. There is no doubt that the Greek archaeologist (who uses the "Minoan" chronological terminology of Evans, by the way), has done his work excellently, and he has no need of exaggerated tributes that are unjust to others.

The objects he has discovered, as well as the "palace" in which they were found, are mainly of Late Minoan I and II date. A plan of this building is given (Fig. 1). In its lowest deposits was found a good deal of E.M. pottery of all three periods, but very little M.M., in which the excavation is deficient. The objects of outstanding interest are of L.M. date and are limited in number; *viz.*, the interesting fragment of mural painting (Pl. IX) depicting a fan (no doubt carried by a flabellifer, as restored by Dr Hazzidakis), the bronze figure of a man in the saluting or adoring attitude (Pl. VI), the splendid obsidian vase (Fig. 27),

and the great bronze cauldrons (Figs. 29, 30). Of these, the praying man, the obsidian vase, and Fig. 30 have already been reproduced in England in my *Aegean Archaeology* (1915), Figs. 14, 8, and 12. The first has recently been almost exactly paralleled by another figure of a male orant identified in the British Museum by Mr F. N. Pryce, and published by him in the *Journal of Hellenic Studies*, Vol. xli; pt. i. Several inscribed tablets were also found (Fig. 19 ff.) at Tyllissos, which no doubt will be important later on.

Dr Hazzidakis appends a translation of an illustrated paper of his on Cretan Tombs of the Bronze Age (periods M.M. III and L.M. III) at Stavromenos, S.W. of Candia, which appeared in the *Athenische Mitteilungen* in 1913.

H. R. HALL.

Aegyptisches Handwörterbuch. By ADOLF ERMAN and HERMANN GRAPOW. Berlin: Reuther and Reichard, 1921. viii + 232 autographed pages.

The need of a hieroglyphic dictionary incorporating the results of recent research has long been felt, and still remained after the publication of Sir Ernest Budge's praiseworthy volume some eighteen months ago. The modest volume now presented to us by Professor Erman and Dr Grapow does, on the contrary, go a great way in the direction of supplying the want, not merely because the name of Professor Erman has long been almost synonymous with advance in Egyptian philology, but also because the two scholars have had at their disposal the vast collections of material accumulated for the great Egyptian dictionary in course of preparation by the united German academies. The new book replaces a far briefer *Aegyptisches Glossar* issued by Professor Erman in 1904. The same general arrangement is retained, but in the present case printed hieroglyphs and text are supplanted by the very neat and legible handwriting of Dr Grapow. On the left, after the transliteration into European characters, come the ordinary hieroglyphic writings; the middle column gives the meanings in German, with Coptic and other equivalents; the right-hand section is reserved for alternative and rarer spellings, often those of earlier and later periods. No references are quoted, probably rightly; the book is essentially one for students, and even a scanty inclusion of references would have entailed a great increase in its size. As it is, the authors were tied down to a restricted number of pages, which forced them to make a choice among the suitable words, and many will regret that a hundred pages more could not have been added, so that some other far from scarce words might have been included; without careful search I have noted the omission of such fairly common words as *mt* "edge" "brink," *ḥt-t* a land measure, *sm* "wanderer" "stranger," *ḥb* "brew," *sw* "net." On the whole, however, so far as a rather cursory examination permits a verdict, the choice has been very judicious and the student will find his needs well supplied. It must not be forgotten that the meanings of a large number of words still remain undetermined, and an explicit statement to this effect in each case, though perhaps soothing to a conscientious learner, would have been without any other utility which could compensate for the waste of valuable space. At the end of the book is a handy list of signs employed as abbreviations of certain words, a list of Semitic equivalents, and further lists giving the names of the nomes and of the months—the latter in a rather misleading form in view of my discovery that *Mesore* was originally an epithet of the first month of the Egyptian year.

That "ERMAN-GRAPOW" is destined to become as indispensable an instrument of philological work as was "BRUGSCH" in a rather distant past, seems a foregone conclusion. Yet the book still bears the mark of a pioneering work, and it would not be difficult for any competent scholar, from the angle of his own particular experience, to find fault with details, though always at the risk of correction by those who have under their fingers the vast collection of evidence assembled for the great Berlin dictionary. The few comments which I venture to put forward are mere casual jottings, but this detail or that may prove serviceable when a new edition is contemplated. As regards readings, *pft* should be read for *pfwt* in the homonymous words for "antiquity" and "a kind of loaf"; the *w* belongs only to the *status pronominalis* and to derivatives, and the same doubtless holds true of *wp(w)t* (*ipt* *εione*) in spite of early erroneous writings with *w*. In *ḥtn* (?) unnecessary regret is shown for an old friend who has proved worthless. Is there a shred of evidence for *ḥpd* "Proviant"? I translate the word "rations" "donative," and believe that all hieroglyphic spellings favour the derivation from *d* "give." No amount of reiteration will make me believe in *mt-t* = *τωμς*; my alternative suggestion for the latter (*Hieratic Texts*, p. 27*, n. 22) may be wrong, but is, I submit, worth consideration. I now agree with Sethe that for "mouth" *r* is preferable to *rt* and to my own suggestion *ri*; if the fuller form be retained, then consistency demands that a like treatment be accorded to *i* "pond." The reading *ḥt-ḥt* "table of the Prince" is new to me, and it would be interesting to see the evidence.

Turning now to meanings, one is glad to note that here and there closer approximations have been attempted than in the *Glossar*. But *int* "Art Nilfisch" for the Arabic *bult* and *ubt* "Art Baum und dessen Frucht; — *ⲉⲃⲱⲩ*" for the Arabic *nebek* ignore facts long since established. Is it really impossible to discover the exact meaning of the formula *ind hr.k*, paraphrased by "gegrüsst seist du"? It is surprising to find the writing with $\textcircled{\text{ⲓ}}$ preferred to that with $\textcircled{\text{ⲓ}}$; the Pyramids have both, but the Middle Kingdom favours the latter. I cannot help feeling that the sense is "vouchsafe (accord) thy face" or "favour"; *nd* means to "confer" in reference to an office or the like, and may have been used as a select word for "to give" "incline" or the like. *Ind* in this phrase looks like an imperative; but materials to follow up the idea fail me at present. *Hw* certainly does not mean (German) "Art"; whatever the difficulty of such phrases as *w hr hw.f* ("alone in his exclusiveness," i.e. quite unique) there can be but little doubt that the word is properly the abstract from the verb-stem *hw* "exclude" "prevent"; the compound preposition *hr-hw* "except" "beside" could not arise from a word meaning "manner," but can do so very well from a word meaning "exclusion." *Dsr* I believe to have a cognate meaning; the stem seems to mean "to forbid" like Arabic *ḥarama*, whence such significations as "holy" "consecrated"; as pointing in this direction *Bersheh* II, 21, 24 will be found interesting, *dsrw* there meaning "privacy" almost like the neighbouring *w^{ssw}*. It is disappointing to find *Hw* still described as the god of nourishment (see *Proc. Soc. Bibl. Arch.* XXXVIII, 43, 83). In the domain of grammar, I welcome the opportunity to record Sethe's correction of a view of my own; *hw* and *hw* represent the old pronouns *hw* and *hw*, not *hw* and *hw*. The inclusion of *in-m* (given as *im*) for "who?" "what?" requires qualification, since these meanings really only apply to the element *m*. The assignation of verbs to their respective classes is not always as carefully carried out as might have been expected. *Mdw* (*medw*?) cannot possibly be *Sae. inf.* on account of Coptic *ⲙⲟⲩⲧⲉ*. *Nny* and *ny* are *Sae. inf.* since geminating forms are found (*nny* in *P. Kah.* 2, 19, *nter* in *Urk.* IV, 363, 6), and *gfw* is *Sae. inf.* for the same reason (*gfw* in *Cairo* 20539, 168; *Sinai* 90, 12); *ts* is *Sae. inf.* because of its feminine infinitive.

Here I must conclude, hoping that the above criticisms may not have conveyed a wrong impression. Regarded as a whole, the handbook for which we have to thank Professor Erman and Dr Grapow is solid through and through, a monument of fine and progressive scholarship, the production of which amid adverse circumstances we cannot too greatly admire or too often hold up to ourselves as an example of the best scientific spirit.

ALAN H. GARDINER.

Institut Papyrologique de l'Université de Lille, Papyrus démotiques de Lille, Tome 1^{er}. By HENRI SOTTAS. Paris: Geuthner, 1921. Pp. xv+92, with 18 photographic plates. Price, 75 francs.

The excavations carried out by M. Jouguet of Lille in 1901 and 1902 in the southernmost region of the Faiyum produced a quantity of the mummy-cartonnage which is beloved of the hunters of Greek papyri. The productive sites were two: Medinet en-Nehâs, "the City of Brass," identified with the little village of Magdôla, "the Migdols," lying at the west end of the Gharak basin, and Ghorân, another small mound, two hours' march to the north of the former. The waste papers out of which such cartonnages were made were bought by the local undertakers from central depots, so that they seldom throw much light on the particular localities to which the mummies belonged. The Greek pieces from Magdôla date from the last years of Euergetes and the first years of Philopator. Those from Ghorân are earlier, of the time of Philadelphus. The demotic papyri from Magdôla appear to be few, three only being published in the present volume; one is of the third century, another of about the time of the Macedonian conquest, and the third bears a unique and interesting date in the reign of an Artaxerxes, presumably the third of the name, that cruel Artaxerxes Ochus who put an end to the regained independence of Egypt. From Ghôrân the examples are much more numerous; they range from Philadelphus to Euergetes, with one interesting outlier of the reign of Nekhtnêbf (Nektanebo I). All the pre-Ptolemaic waste paper from both sites appears to have been derived from Heracleopolis Magna.

It is I think the first time that demotic papyrus obtained from cartonnage has been utilised in publications. From the nature of the writing, fragmentary demotic is much more difficult to read and restore than fragmentary Greek; very tender, loving and skilful handling is required to separate the gummed cartonnage into its constituent pieces without destroying their legibility. How it can best be done has been shown by Grenfell and Hunt. It is much to the credit of the Lille Institute under M. Jouguet that the

work there is being so successfully accomplished. Some examples are in remarkably good preservation, others are little more than precious scraps.

The subjects touched on in this first gathering are varied and in many cases new. Four concern the bail for prisoners, and were first read by Mr Sottas in a valuable article in the *Journal Asiatique* for 1914 which should be consulted¹. Besides these there are a curious and difficult suppliant letter, sworn declarations of the numbers of sheep and goats by proprietors, tax receipts, a sale of "liturgies" or priestly emoluments, sales of property, a marriage contract of the fourth century, rules of a religious association of the third century, form of receipt by a building-contractor, a list of priestesses, and statistics of the movement of workmen or population in a district. In most of them there is an abundance of puzzles to be solved. M. Sottas in his introduction sketches the earlier work of French demotists, which naturally concerns mostly the ingenious Revillout whose laboriousness while it opened up new fields was too often almost nullified by extraordinary inexactitude. Unlike his predecessor, M. Sottas distinguishes between certainty and conjecture. He brings a wide knowledge and acute mind to the problems raised and discusses them in a thoroughly scientific way. This publication will greatly help to restore the credit of demotic studies in France, and it is to be hoped that it will gain further recruits, for the meeting-ground of Greek "papyrology" with Egyptology must throw light on the history of Hellenism in general and that is a subject of growing importance in the eyes of scholars.

I must not close this brief review without a reference to the enterprise of the publisher, Paul Geuthner, who has undertaken the risk in these hard times of giving to scholars an important book full of difficult printing and with excellent photographic plates on a subject that cannot by any means be called popular.

F. LL. GRIFFITH.

GRIECHISCH-ÄGYPTISCHER OFFENBARUNGSZAUBER. Mit einer eingehenden Darstellung des griechisch-synkretischen Daemonenglaubens und der Voraussetzungen und Mittel des Zaubers überhaupt und der magischen Divination im besonderen. By Dr THEODOR HOFFNER, of the German University in Prague. I. Band (WESSELY'S *Studien z. Paläographie u. Papyrskunde* XXI). Leipzig: H. Haessel-Verlag 1921, iv and 266 autographed pages.

Among the papyri found in Egypt are some which contain Greek writings on magic. There are two of these *Papyri magici* in Paris, edited by Wessely²; two in Berlin, edited by Parthey³; two in Leyden, edited by Leemans⁴, and re-edited by Dieterich⁵; and seven (but most of them quite short) in the British Museum, edited by Wessely² and also by Kenyon⁶. The extant copies were mostly written in the third or fourth century after Christ; but as many of the texts contained in them must have been in existence for some considerable time before these copies were written, the date of composition of these documents may be put somewhere about the second century A.D.

The contents of the Greek magic papyri amount altogether to more than 7000 lines. And to these must be added a Demotic magic papyrus, written in the Egyptian language in the third century A.D., which has been edited and translated by F. LL. Griffith and H. Thompson. This Demotic papyrus is closely connected with the Greek magic papyri of the same period; it contains a collection of charms of the same kind; and it appears that a large part of its contents, if not the whole, has been translated from Greek originals.

The contents of the papyri consist of instructions for the performance of magic operations. Each of the several paragraphs or sections is a separate document, written in this form: "In order to produce a given result, you must do such and such things, and speak or write such and such words." Each of the longer papyri may be described as a sorcerer's note-book, in which he entered, without any attempt at systematic arrangement, a series of prescriptions of this kind, mostly transmitted to him from earlier magicians.

We have in these papyri a large mass of evidence concerning magic as taught and practised in Egypt under the Roman empire. There is much in them that throws light on certain aspects of the life and

¹ Two were published here; a third with an important dating in the epagomenal days was published and discussed in the *Comptes Rendus* of the Academy for 1921.

² *Denkschr. der K. Akad. der Wissensch., Phil.-hist. Classe*, Bd. XXXVI, Wien, 1888, and *ib.* Bd. XLII, 1893.

³ *Abhandl. der Akad. der Wissensch.*, Berlin, 1865.

⁴ *Papyri Graeci Mus. Lugd.-Bat.*, Vol. II, 1885, Papyri V and W.

⁵ Pap. V, *Jahrbücher für Class. Phil.*, Supp. XVI, 1888; Pap. W, *Abraxas*, Leipzig, 1891.

⁶ *Greek Papyri in Brit. Mus., Catalogue with texts*, 1893.

thought of those times, and especially on the history of religion; much that should be of interest to anthropologists and students of folklore; and much that invites investigation from the point of view of the psychologist. But hitherto it has been difficult for those who might have made use of these documents to get access to them, and to avail themselves of the material contained in them. The papyri have indeed been deciphered and transcribed by experts; the texts have been to some extent, though far from completely or finally, restored and emended by their first editors; and in that form they have for some time been in print. But these printed texts, and such further emendations and comments on them as have been subsequently published by others, are scattered about in foreign periodicals and elsewhere; and when one has hunted them up, it is not easy to make out their meaning. Those who are interested in the subject have long been wishing to see the documents brought together and re-edited in one body, with such aids to the reader as may conveniently be given.

It appears from an article by Preisendanz, in *Wiener Studien*, 1918, that shortly before the war, arrangements were made in Vienna to supply this want by publishing a *Corpus* of the Magic Papyri. The editing of the several papyri was assigned to certain scholars, of whom Preisendanz was one, and the work had been begun; but it was stopped by the war, which made printing impossible. How much of it has been done, and whether there is now any prospect of its completion and publication, we are not informed. Dr Hopfner, in his Preface, dated Feb. 1920, says about this only that the new edition of the Greek Magic papyri, undertaken by Preisendanz and his colleagues, "nicht erfolgt ist."

But a large instalment of the thing wanted is now supplied by Dr Hopfner's book. (His work is in two volumes, of which the first alone has hitherto come to hand; but the second may be expected to appear shortly.) He divides the numerous charms or magical operations given in the papyri into four classes, viz. (1) *Schutz- und Abwehrungszauber* (charms for protecting the operator and warding off harm from him); (2) *Angriffs- und Schadenszauber* (charms for attacking and harming others); (3) *Liebes- und Machtzauber* (love-charms, and charms for getting power over others); and (4) *Erkenntnis- und Offenbarungszauber* (charms for getting information from gods or daemons, i.e. divination-charms). He has selected as his special subject the fourth class, *divination-magic*; and in his second volume he will give a revised text of the divination-charms in the Magic Papyri (that is, of more than sixty charms), with translation and commentary. His revised text will be based on the printed editions and the emendations of numerous scholars, of whom he names (including the first editors) thirty-seven. Thus, as soon as his second volume appears, a large part of the contents of the magic papyri will be much more easily accessible and intelligible than they have hitherto been. As to those parts which fall under the three other headings, Dr Hopfner makes no promise; but it may be hoped that he—or if not he, some other or others—will subsequently re-edit in the same way those other documents also, and thereby place at the disposal of students the whole of the material contained in the papyri.

It might perhaps be objected against Dr Hopfner's classification of the documents that it does not cover the whole ground. There are in the papyri numerous charms the purpose of which is to get some benefit (e.g. wealth, good luck, etc.) for the operator, and which can hardly be included in any of his four classes. Would he put them under *Schutz- und Abwehrungszauber*? In such an instance as the quaint charm for getting a good domestic servant (Pap. Lond. 125), that would involve a very forced interpretation of the terms *Schutz* and *Abwehrung*.

Perhaps it would be better to classify the charms in a different way. The man who uses magic wants and expects to do by means of it one of two things; either to get knowledge of something, and especially foreknowledge of future events; or else, to influence the course of events, i.e. to cause something to take place, or prevent something from taking place. The charms given in the papyri may therefore be divided into two main classes. The first class (A) consists of charms, the purpose of which is to get information; this may be called *divination-magic*, and it is this kind of magic (*Erkenntnis- und Offenbarungszauber*) that is the special subject-matter of Dr Hopfner's book. The second class (B) consists of charms intended to influence events; and this may be divided into sub-classes. There are charms the purpose of which is (Ba) to produce some result for the operator, without immediate or explicit reference to any other person; under this head fall (Ba 1) charms for protecting the operator from harm (Dr Hopfner's *Schutz- und Abwehrungszauber*), and (Ba 2) charms intended to get some benefit for him (e.g. to make him lucky, rich, handsome, or eloquent; to make him invisible, or to change him into the form of some animal; to get for him a *παῖς ποσὶ δαίμων*, i.e. a "familiar spirit" whose services will be at his disposal). There are also numerous charms the purpose of which is (Bb) to act on some person other than the operator. Under this head fall (Bb 1) charms intended to work on others to their harm (Dr Hopfner's *Angriffs- und Schaden-*

zauber), or to make them subject to the operator's will (Dr Hopfner's *Liebes- und Machtzauber*); and (Bb 2) charms intended to act on others for their benefit. But in the Magic Papyri, the sub-class Bb 1 is large and various (to it belong *κατάδεσμοι, ἀγωγὰι* and *φίλτρα, διακόποι, ἐπιπομπαί* (including *ὄνειροπομποί, θυμοκάροχα, ὑποτακτικά*); and the sub-class Bb 2 is represented by a few specimens only (directions for casting out daemons from persons possessed by them, and some few prescriptions for healing hurts and diseases). It was commonly believed that magicians not only had supernatural powers at their disposal, but used those powers largely, if not solely, for the purpose of harming or subjecting others (i.e. for purposes which fall under the sub-class Bb 1). Hence it was that they were feared and hated, and that the practice of magic was forbidden by Roman law. There is in the Magic Papyri enough of this harmful kind of magic (i.e. of charms intended to do harm) to show that the writers of these documents fully deserved the bad repute which attached to men of their occupation.

It would seem best to classify the charms in some such way as this. But there are charms that can be used for two or more different purposes, and some that can be used for any purpose whatever; and in any classification based (as are both Dr Hopfner's and that here proposed) on the purpose or intended effect of the magical operation, a place must be provided for these also.

The value of Dr Hopfner's work is not however seriously impaired by any defect that may be found in his classification of magic. Whatever method of division may be preferred, the divination-charms form a class distinct from the rest, and it is well to have them dealt with separately.

In re-editing and commenting on the divination-charms in the Magic Papyri, Dr Hopfner renders a much needed service. But he has done much more than this. By way of introduction to his work on divination-magic, he has written a comprehensive treatise on ancient Greek and "Graeco-syncretic" magic in general,—a treatise which fills the whole of his first volume, and will be supplemented by some additional chapters in his second volume; and in this treatise he uses as his material not only the data supplied by the Magic Papyri, but also whatever is relevant to his purpose in Greek and Latin writings in general down to the sixth century A.D., and more especially in those of the Neoplatonists. His way of dealing with the subject can be best indicated by giving a short summary of his *conspectus* of contents. The chief headings are as follows:

PART I: THE BEINGS INTERMEDIATE BETWEEN GODS AND MEN, and the relations of these beings to the gods and to men: (1) the daemons (a) according to the teaching of philosophers, (b) according to popular notions; (2) the "heroes" and disembodied human souls.

PART II. THE MEANS WHEREBY THE INTERMEDIATE BEINGS AND THE GODS CAN BE INFLUENCED BY MEN. Ch. 1: "Sympathy" and "antipathy"; the "sympathetic" or "symbolic" animals, plants, and minerals. Ch. 2: The human body as a microcosm in "sympathy" with the macrocosm. Ch. 3: Disembodied human souls influenced by means of the so-called *orgia*: the *orgia* of living men, and of gods. Ch. 4: Gods and daemons influenced by means of voice and speech: the "authentic" god-names, the *vores mysticae*, vowel-sounds, etc. Ch. 5: The employment of the "sympathetic" or "symbolic" animals, plants, and minerals, in combination with the immaterial means (*viz.* names, sounds, and verbal formulae): anointings, fumigations, inks, statuettes, drawings; the processes by which god-souls are put into statues in cult and magic. Ch. 6: Antecedent conditions for success in working magic: observation of time and place; "purity"; special directions for the several parts of which every magical operation consists.

All this is contained in the first volume; in the second volume there will be some additional chapters on ancient magic in general, and some on divination-magic in particular. On each point dealt with, Dr Hopfner gives copious references both to the ancient sources (from which he quotes largely) and to the writings of modern scholars. He appears to have studied the subject exhaustively; and the results of his studies are placed before the reader in clearly and concisely worded statements. He makes it his business to give us facts; and he gives facts in plenty, duly ordered and arranged. Among the facts which he gives are the theories of ancient philosophers concerning that "intermediate realm" of daemons and ghosts on which the magicians were thought to exert influence, and from which they were supposed to draw supernatural power. But he does not himself theorize; and those who want disquisitions concerning the origin of magic, or discussions of the question how magic is to be defined, or how it is related to religion, must look for them elsewhere. His treatise will be none the less useful because he keeps within the limits he has laid down for himself; and we may expect that it will be generally recognized as the standard textbook on the magic of the Roman Empire. He refrains from adducing parallels either from mediaeval and modern magic as practised in civilized countries, or from corresponding practices among uncivilized races in the present and the recent past. Here are ample fields for other workers. It would be an attractive task

to trace the history of magic in Europe, or of any one branch or department of magic, through the Middle Ages, and down to the survivals or revivals of magical practices that are to be found among us to-day; and anyone who should undertake such a task could not do better than take Dr Hopfner's book as his starting-point, and work on similar lines.

A critic whose aim was to discover mistakes would, for the most part, find himself baffled by Dr Hopfner's accuracy. But it may be well to mention a few passages in which some alteration seems desirable.

In his account of the earlier philosophic theories concerning daemons (Part I, 1a), he does not mention Ps.-Plato *Epinomis*. It is true that, in dealing with philosophic writings before Plotinus, he is intentionally brief; but the passage about daemons in *Epinomis* 984 B—985 D might have been referred to with advantage, as later writers, including Neoplatonists, were influenced by it. See, for instance, Chalcidius *In Tim.* §§ 126—135, Mullach *Fr. Ph. Gr.* II, 210—212,—a passage which might be added to Dr Hopfner's references to the Neoplatonists. Chalcidius is thinking of the *Epinomis* in § 134.

Posidonius, who wrote a book *περὶ δαιμόνων καὶ ἡρώων*, is not mentioned in Part I 1a, and his name does not occur in the Index to Vol. I; but his teaching concerning disembodied souls is spoken of elsewhere in this volume. There is in Vol. I no account of Posidonius' doctrine of divination (known to us chiefly through Cic. *De div.*); but that, and the teaching of the Stoics in general concerning *μαντική*, may perhaps have been reserved for Vol. II.

Dr Hopfner repeatedly says things about Pythagoras which it would be difficult to prove; e.g. that Pythagoras distinguished three classes of daemons (§ 15); that Pythagoras knew the planets, and called each of them by a distinct name (§ 149); that Pythagoras attributed voices to daemons (§ 206), and said that daemons know the future (§ 242). There are few things, if any, of which it can be asserted without doubt that they were said by Pythagoras; and it is safer to say that this or that opinion was attributed to Pythagoras by some person or persons who lived long after him.

Dr Hopfner says (§ 61) that the so-called "Iamblichi de mysteriis liber" was written by a pupil of Iamblichus. Is that certain? The author of that treatise (which might more conveniently be called *Abammonis ad Porphyrium responsum*) resembles Iamblichus in combining *theurgia* with philosophic doctrine of the Neoplatonic type; but there is no reason to think that Iamblichus was the first inventor of that combination, or that all who internixed *theurgia* with philosophy learnt from Iamblichus. Plotinus held aloof from *theurgia*, but Porphyry accepted it to some extent, though not so largely as Iamblichus. The *De myst.* appears, on the face of it, to have been written by a contemporary of Porphyry, to whom it is addressed, and to whose letter it is a reply; and the writer's tone of courteous condescension suggests that he was, if not an older man than Porphyry, at any rate not much younger. But Iamblichus was junior to Porphyry, and was a pupil of one of Porphyry's pupils, as well as of Porphyry himself; a pupil of Iamblichus could not therefore have been old enough to write this treatise before the death of Porphyry. The philosophic doctrine of the *De myst.* agrees with that of Iamblichus, in so far as both are Neoplatonic; but it would be difficult to find in the *De myst.* any trace of those special characteristics by which the theology of Iamblichus was distinguished from that of other Neoplatonists after Plotinus,—e.g. his discovery of a *παντάπασις ἀρχή* distinct from and beyond or above the *ἀπλὴς ἐν* (Damascius *De princ.* cc. 43, 45, and 51). It is true that Zeller (III, ii p. 746 n. 2) thought he found that doctrine in *De myst.* 8, 2; but he seems to have interpreted that passage wrongly. Moreover, Iamblichus constructed a complicated system of triads (Zeller *op. cit.* p. 748), but there is no mention of these triads in the *De myst.*

Dr Hopfner (§ 147) makes certain statements about Apollonius of Tyana, for which he has no authority except Philostratus,—that is, none at all; for what Philostratus says about Apollonius is not evidence. The passage to which he refers might have been rightly adduced to show that certain notions were current in the time of Philostratus.

After giving a summary of the contents of Cicero's *Somnium Scipionis*, Dr Hopfner says (§ 262) "There is no doubt that Cicero is here following the teaching of Posidonius." But on this point some speak less confidently; e.g. Rohde (*Psyche*, 1894, p. 610) says "If Posidonius has really been made use of in the *Somn. Scip.*," and (*op. cit.* p. 616) "It is at least very likely (sehr glaublich) that in the *Somn. Scip.* Cicero made use of Posidonius." It seems to be established that one thing at least in the *Somn. Scip.*, viz. the notion that beatified human souls dwell in the Milky Way, was derived from the "Vision of Empedocles," the author of which was Heraclides Ponticus (Rohde, *op. cit.* p. 385 sq.). It is possible that this notion was transmitted to Cicero through Posidonius, or through some other intermediary; but it is also possible that Cicero took it directly from Heraclides, and that there is a good deal more in the *Somn. Scip.* that

comes from the same source. In composing an imaginary dream concerning the lot of disembodied souls, Cicero would be likely to look for suggestions in an imaginary vision on the same subject composed by an earlier author; and in the "Vision of Empedotimus" he would find the sort of thing he wanted. It is known that Posidonius spoke much of the atmosphere, which he held to be the abode of all disembodied souls except the select few who are worthy to ascend higher and dwell in heaven; but in the *Sonn. Scip.* nothing is said about the atmosphere. This fact rather tells against the view that the chief source of the *Sonn. Scip.* was Posidonius.

In § 604, Dr Hopfner speaks of the *ρόμβος*, which was an instrument used in cults of Dionysus and the Mother-goddess, and employed by sorcerers and witches in invocations of Hecate and in love-charms. He says the *ρόμβος* was a spinning-top (Kreisel). But it is almost, if not quite, certain that the *rhombus* was not a top. There can be little doubt that Andrew Lang (*Custom and Myth*, 1885, pp. 29-44) was right in saying that *ρόμβος* means "bull-roarer." The bull-roarer is a thin flat piece of wood, shaped like a laurel-leaf, with a string tied to one end of it. The operator, holding the loose end of the string, whirls the thing round and round in the air, and thereby produces a weird roaring sound. This instrument is used by boys in England as a toy, and by savages in Australia (where it is called *turnadun*), in Africa, and in America, in religious mystery-rites. A bronze *rhombus* is spoken of in Theocr. II, 30, and an iron *rhombus* in Pap. Mag. Par. i 2296; but it is most likely that the Greek *rhombus* was commonly made of wood, like the bull-roarer of English boys and Australian blackfellows. The identification of the *ρόμβος* of cult and magic with the bull-roarer is confirmed by the other uses of the word *ρόμβος*. A species of flat-fish was called *ρόμβος*; and a flat-fish is very much like a bull-roarer in shape, but not at all like a top. In Greek geometry a *ρόμβος* means an equilateral but not rectangular parallelogram, i.e. a lozenge-shaped figure. Change each of the two curved sides of the bull-roarer into two equal straight lines meeting at an obtuse angle, and you get a lozenge. A. Lang, *ib.* p. 35, gives an engraving of a bull-roarer (from New Zealand), the sides of which are somewhat straightened; and its shape is approximately that of a geometrical *rhombus*.

Dr Hopfner quotes Theocr. II, 30, *χώς διειδ' ὅδε ρόμβος ὁ χαλκεὺς ἐξ Ἀφροδίτας, | ὡς τήνος δινοῖτο παθ' ἀμετέρῃσι θύρῃσιν*. He takes the meaning to be "As this top is spun by Aphrodite." But the sentence ought surely to be punctuated as it is in Wordsworth's edition: *χώς διειδ' ὅδε ρόμβος ὁ χαλκεὺς, ἐξ Ἀφροδίτας ὡς τήνος δινοῖτο κ.τ.λ.* The *rhombus* is whirled, not by Aphrodite, but by the woman who works the charm; it is *the man* that is to be whirled by Aphrodite.

In § 638, he says that the Emperor Julian slaughtered boys in magical sacrifices. Here he seems to accept too readily the slanderous statements of Julian's Christian enemies. The early Christians were accused by pagans of slaughtering children in their religious rites; is there any more reason to believe the accusation in the one case than in the other?

In § 724, he quotes an extract from an "Oratio" of Hermes Trismegistus "ad regem Aegyptium," which he has found in Nicephorus Gregoras *Scholia ad Synesii de insomniis*. He has overlooked the fact that the passage which he quotes is taken from *Corpus Hermeticum* XVI, 2 (Reitzenstein *Poimandres*, p. 349), where it occurs, with some differences of reading, in an epistle of Asclepius to King Ammon.

It may be doubted whether Dr Hopfner is wholly right in what he says about *ὀψία* (Part II, ch. 3). The word *ὀψία* is used in the papyri as a technical term of magic. In some cases, this word denotes a material thing which comes from the body of the person on whom the charm is meant to work, or has been in contact with that person's body; for instance, a lock of hair, or a scrap of worn clothing. The operator gets hold of something of this sort, and places it in contact or conjunction with something that represents or symbolizes the supernatural agent (god, daemon, or ghost); and he thereby subjects the person to the action of that agent. In other cases, the word *ὀψία* is used to denote something taken from a corpse, e.g. a skull or bone, or a handful of earth from a grave. By putting any such remnant of a dead man in contact with or proximity to the person to be acted on, you place that person under the power of the dead man's ghost.

How did the word *ὀψία* come to be used in this way? Dr Hopfner seeks to explain the latter of these two uses by saying (§ 645) that "between the restless soul (of the *βαιοθάνατος*, *ἄψωρος*, or *ἄραφος*) and its earthly body, the present corpse, there is an occult connexion.... Hence the earthly remains of these dead persons belong to the *Wesenheit* (essence or substance) of their souls; and for this reason the Greeks are wont to use the word *ὀψία* to denote these relics of corpses. He who possesses the *ὀψία* of a restless soul, and knows how to employ it rightly, thereby gets influence on that soul, and can make it subject to his will." Would he likewise explain the *ὀψία* of a living person (e.g. *ὀψία* denoting a lock of hair) as meaning

the "essence" or "substance" of that person's soul? It is difficult to accept this explanation; a lock of hair cut from a person's head has, no doubt, some sort of connexion with that person's soul, but surely could not be called the "essence" of it.

It seems more likely that *oûsia*, when thus used, means a *substantial or material thing*, as opposed to the unsubstantial or immaterial *words* employed, *i.e.* the name or verbal formula. In an *ἀγωγή*, for instance, the operator writes on a tablet or image the name of the woman on whom he is seeking to work, and the words "Bring her to me," or something to that effect; he also attaches to it a lock of her hair, *i.e.* a *material thing* which represents her. The latter is called *oûsia*,—presumably in contrast to the words. In other cases, the operator summons the dead man's ghost by a verbal invocation, and at the same time makes use of a bone taken from the grave; and the bone, *i.e.* a *material thing* which represents the dead man's ghost, is called *oûsia*,—likewise in contrast to the words. For *oûsia* meaning a *material thing*, cf. Arist. *De caelo* 3. 1, 298a 28: τῶν φύσει λεγομένων τὰ μὲν ἐστὶν οὐσίαι, τὰ δ' ἔργα καὶ πάθη τούτων. λέγω δ' οὐσίας μὲν τὰ τε ἀπλὰ σώματα, οἷον πῦρ καὶ γῆν καὶ τὰ σύστοιχα τούτοις, καὶ ὅσα ἐκ τούτων, οἷον τὸν τε σύνολον οὐρανὸν καὶ τὰ μέρη αὐτοῦ, καὶ πάλιν τὰ τε ζῷα καὶ τὰ φυτὰ καὶ τὰ μέρη τούτων. The word *oûsia* is there contrasted with *ἔργον* and *πάθος*; we should have a more exact parallel to its use in magic, if an instance could be found in which it was contrasted with *ὄνομα* or *λόγος*. The Stoics habitually used the word *oûsia* in the sense of "corporeal substance"; and though the sorcerers were not students of philosophy, a term employed in Stoic physics might very well find its way down to them.

But though a reader may find here and there something that he would prefer to see put differently, the general impression produced by reading through the treatise is that Dr Hopfner's work is sound and accurate in a high degree.

The book is produced in an unusual form; it is not type-printed, but hand-written. It has been written out by Dr C. Wessely, and his handwriting has been reproduced by some mechanical process. The writing is closely compressed, but is remarkably well-shaped, regular and clear. This return to mediaeval usage has presumably been made necessary by difficulties in the printing trade. But handwriting, even of the best, is not so easy to read as print; and it is to be hoped that, by the time that a second edition is demanded, the present difficulties will have passed away, and that the book will then be printed in the ordinary way.

W. SCOTT.

Koptisches Handwörterbuch. By WILHELM SPIEGELBERG. Heidelberg: Winter, 1921. Pp. xvi and 340.

The need of a successor to Peyron's dictionary has so long been obvious and the progress of that which I have had in preparation these many years is so slow, that the appearance meanwhile of one in Germany was almost inevitable. No scholar was better prepared than Prof. Spiegelberg for the task, as modern Egyptology requires it; for the etymological aspect of Coptic studies and the relations between Coptic and Demotic have constantly occupied him. It is in fact this element in his book that is the most interesting as well as the most novel. His conspicuous familiarity with both the final phases of the Egyptian language has enabled him to recognize Demotic prototypes for many Coptic forms, while at the same time assessing the value of the etymological suggestions of previous scholars. Taken together, then, with M. Dévaud's acute investigations, the historical side of Coptic studies hereby receives a notable and unaccustomed impetus. But as a dictionary for those too whose business with the language is literary rather than philological the work will be found invaluable, for it is based upon a vastly wider material than that available to Peyron. That Spiegelberg has availed himself of almost all of it is evident from the Bibliography (p. xiii), the only conspicuously absent work being F. Rossi's *Papiri*. The obstacles to study consequent on the war have indeed had their effect here as elsewhere: not only were several important publications of the last seven years unavailable, but the author had for some time to do his best at a distance even from his own library: and what that means only those know who have suffered like privations.

Unfortunately the book also shows traces of somewhat hasty composition; it was put together, we learn, within six months. Spiegelberg claims to have subjected Peyron's material to criticism, within certain limits; as a matter of fact that material needs far minuter scrutiny than he devoted to it. Forms found there and sometimes translations too have been undeservedly accepted. Conspicuously is this the case in respect to the Pentateuch, where Lagarde has not always been consulted. Again not a few forms have found places here which others would, in a dictionary, have ignored as mere irregularities (though it is true that consistent limits of inclusion are not at present easy to fix); words again, though identical, are

found repeated in distinct places; while others appear together as but one, where I, at any rate, should propose to distinguish them. Moreover Spiegelberg's self-denial, in renouncing so much that the mediaeval glossaries (Kircher) offer, has, I think, been carried too far; for they have preserved many a good Egyptian word, several of which the older Bohairic texts, when published, will be found to substantiate.

Two of the most troublesome problems with which the compiler of a Coptic dictionary is faced are: how to combine practical convenience with scientific requirements in deciding on the sequence of words, i.e. how to deal with the semi-vowels; and how to find a reasonable criterion for the inclusion of Greek words. As to the first, Spiegelberg has chosen a middle path between the older (we might call it the 'classical') principle of Peyron, Stern and Mallon and the more uncompromising ('semitic') system of Steindorff and Sethe. Thereby his book unquestionably gains in handiness. As to the second problem, his procedure seems to me less defensible; for not only does he rightly include words already naturalized in earlier stages of the language, but he admits a selection besides from the innumerable host which were adopted with Christianity and whose current forms have remained no more than ill-spelled Greek.

Before passing to the main subject of this notice, I may be allowed to testify to the immense advantage I have gained by a study of Spiegelberg's work; not alone upon the etymological side of the business—therein there are few of us who may not learn from him; but also in having my attention drawn to weaknesses and unsuspected gaps in my own material, and in benefiting by his views as to the interrelation of many words and the meanings of many more. Nor can I omit to notice the courtesy with which, in his Preface, he always speaks of other scholars, or the exemplary care he shows in crediting his fellow-workers with such references or suggestions as they may have supplied to him.

The list which now follows requires some explanation. When, within a few years of each other, two dictionaries of a language, whose vocabulary is still but partially ascertained, make their appearance, those who consult the later in date will doubtless expect to meet with words and forms not yet recorded by the earlier book; but they may be less prepared to find some omitted from the newer which the older had accepted. Yet this will inevitably be the case as far as Spiegelberg's dictionary and my own are concerned. In self-defence therefore I offer to students this list, which consists (almost exclusively) of such of Spiegelberg's words, forms and meanings as, for one reason or another, will not reappear in my dictionary. That my list includes all such cases I do not pretend; further use of the book may suggest additions to it. The Dialects are in what follows indicated by their initials: A=Achmimic, S=Sa'idic, B=Bohairic, F=Fayyumic.

P. 2 **ἀήοτ** 'monastery'; so Peyron, copying Zoega, copying Tuki. MS. reads **ἀήντ**.—P. 3 **ἀλε** (**εζρη**) 'descend upon,' rather than 'fly.'—**αλε** (A) 'luxuriate'; non-existent; read **βααλε**=S **ουοαλε**.—**αρω** merely imagined by Lemm.—P. 4, n. 2. I mistook **αλατ** in my *Ostraca* 242 for this; its meaning is 'linen.'—**αμη**, prob. **αμη** (Loret).—**αμε** 'shepherd'; I have not found this singular.—P. 5 **αμη**, prob. read **αμελει** with S.—**αμομεμ**; non-existent; read (**οτ**)**αμομε**, comparing BUDGE, *Mart.* 209, 2.—P. 6 **απτήποουτε**; read **πα-πτήποουτε**, 'he of the cattle' (so already LEMM, *Misc.* LXXII).—P. 8 **ερ παπατοστ**; in both places cited we read **ερε π-**—**αντ**; prob. read **μητμηπτα** (dittography).—P. 9 **ρμπας**; not 'an old man,' but **ο παλαιος ανθρ.**, in the Pauline sense.—**αας**; in Ex. xxi 18 (Maspero) the word is **ααχε**, as elsewhere.—P. 10 **ατε**—negat.; non-existent; is *stat. constr.* of **ατο** 'number.' (Sap. vii 22=**πολυμερις**, H. Thompson's var. **ατο κμοστ**, Eph. iii 10=**πολυποικιλος**; cf. BUDGE, *Hom.* 135 **οτατο κμοστ**=**ποικιλην**. Against these and others, Sap. xi 18=**αμόρφον** alone is not convincing.)—P. 11 **αταп** 'colour' of skin, never skin itself.—**ατη μμηт**; I prefer Zoega's reading: 'having filled books for their (own delectation) and yours, with vain words.'—**ατηт**; same, I think, as **ατηт** 'monastery.'—P. 13 **аре** 'use, profit'; non-existent; Sethe should have read **та-ρεпкоуте**=**τήν ἐτέρων ὠφέλειαν** (P. G. 26, 912).—**аре** 'yea,' only in *Texte u. Unt.* 43, § VII, 1 and wholly uncertain.—**арот** (A) 'treasure'; non-existent; read **аротп**.—P. 14 **асол**; non-existent; MS. has clearly **асолт**.

бай, чен- is 'blow with a palm staff.'—P. 15 **ēhēe**; Tbēbe is a place; cf. Dabābiyah, opposite Gebelein.—P. 18 **ēepnē** 'portal,' rather than 'step,' in places cited.—P. 19, n. 2 **ēarhit** in Lev. xvi 5 simply 'he-goat' (**χιμαρος**), as elsewhere.—**ēepmo**; the Arabic translator (*op. cit.* 217) takes this for 'pitch,' intrinsically quite probable.—P. 20 **hātи**; non-existent; MS. has **hāl**.—P. 21, n. 1. It may be observed that Kircher 164 and Peyron s.v. recorded the 'Thracian' fox, prior to Lagarde.

P. 22 **ειασιx** as 'washbasin' needs its preceding **πνιxιc** (**νιxιc**); v. my *Short Texts* no. 439.—P. 23 **ειω** 'vat'; read **ειωμ** with Ciasca in *loc.*—P. 24 **зи-ιcлeл** read **зи-ελελ**.—**ελοουτε**; delete; cf. p. 52 *infra*.—

¹ Kindly collated by Mgr. Hebbelynck.

P. 25 ελωή 'owl'; for it in Deut. xiv 15 Lagarde has ελωή. A most confusing word, equivalent of three distinct Greek ones.—εμν translates *συρρέλεια*, not *ἐργον*; I read ραν.—εμεασι; non-existent; read ε πεασι (cf. Hab. i 7).—P. 28 ειερη; so the MS., but probably erroneous, since *πειρο* comes twice on same p. in identical phrase.—ερωτε; plur. (A) is *ιαρατε*.—P. 29 εατ; in Ez. vi 3 read εα; cf. S *ad loc.* εα. Ezekiel notoriously retains many S forms.

P. 34 ηπι 'number' not 'shrine' (so LEMM, *Misc.* cvii, 1151, confirming WINSTEDT, *Theod.* 121).

P. 35 κο; non-existent; read *ῥοτικς*, as in S.—P. 37 καε; non-existent; read *μετσαε*, var. of *μετσε* (v. HORNER in 2 Pet. i 16).—κοε is merely one of Paris 44's countless blunders; read *πικροε* (*ἐργάβ*) with CLASCA 1 p. xiv.—P. 38 κλο; not 'oven,' but '(arrow) poison.'—P. 39 κοτωλ; why correlated with *συνλωλ*? In no biblical text do they correspond.—P. 42 κοουε needs a cross-reference to *κωουε*, of which it is but a phonetic variant (e.g. Lu. xxiii 53).—κινε; I think LEMM's demonstration that this=*κύνη* was adequate.—P. 45 κος; Lagarde in *loc.* has *κως*, the usual form for *ταφή*, which is not 'grave.'—κεε I take to be but an irregularly spelt var. of *καεε*.—κτο 'fence'; in Job xxxviii 31 the first κτο is, I think, an error. The var. *πολκαλ* (H. Thompson) suits *φραγμός*; it is *τρόπος* (in 33) that κτο translates.—P. 46, n. 1 κετ; non-existent; in the phrase cited it is the verb=*καατ* 'permit me.'—P. 47 κοω 'dig'; I a metathesis of *κωω*. In *George* 132 I think the usual meaning, 'broken,' suits it.—P. 48 χρις; prob. a distortion of *ισχίον*. Paris 44, 110 has here *εχίον*.

P. 49 λεήτων is surely *λεβήτων*, which is met in various forms: *λεβήτων*, *λοβήτων*, *λοβήτε*, *λεβήτων* &c.—*λωή* I have not met as 'purify' (metals). In *George* 121 it is 'to heat.'—P. 50 λακμη as F I cannot find, only *λεκμη* (Mat. xiv 20).—P. 51 λααμε (S *qualit.*) is clearly 'befouled' in the place cited.—P. 52 λαψανε; is not this Greek?—P. 53 λευτιον; prob. read *λεβήτων*; cf. use of this in Ryl. no. 213 n.—*λορλε*, to judge by its noun, should be *λαρλε*.—P. 54 λωαε; non-existent; Peyron misquotes Giorgi, who prints *λωαε*.

P. 55, n. 8 *μοτ*, *Acta Mart.* i 192, simply 'death,' I think.—P. 56 *μμη* 'urine'; read *μεμη*, as Chassinat rightly prints it.—P. 57 *μοτη* wrongly read by Giorgi; v. *Acta Mart.* i 106 *μοτη*.—*μαλακη* prob. = *μαυίτης*, though omitted by LXX in Is. iii 19; but cf. *Vulg. armillas*.—P. 58 *μακλαε*=*μαγκλάβιον*.—*μακατ* in Mich. v 6 prob. 'lance'; cf. *Vulg. lanceis*.—*μελα*=*μέλαν*, 'ink,' not 'papyrus' (so Peyron, despite Ign. Rossi and the Arabic gloss *midād*).—P. 59 *εμλαρε*, if B, should have *ε*. I cannot trace a B form with *-q*.—P. 61 *μαποουτ*; the Copt read, I suspect, *σχοπιά* in both verses (Is. xxi 6, 8); therefore *μα-ποουτ*.—*μοτηκ*; in these vv. of Exod. the word for *στρέφω* is *μομμεν*, not *μοτηκ*.—*μκε*; further evidence shows this to be a place-name.—P. 62 *μαπσαλε*=*μάκελλα*.—*μτω*; vars. show that *μτω* is to be read.—P. 63 *μορι*; non-existent; prob. misprint for *πορι*, as Lagarde has *ποτρι*.—P. 65 *μτω* and *μτω* can hardly be distinct words.—P. 68 *μοου* 'rain'; hardly: more prob. the rising inundation.—P. 69 *μαρε* 'girdle'; non-existent; Peyron's reference should be Is. xix 9, *λίον*.—P. 70 *μαρεετ*; I prefer *μαρε ετπομα*.

P. 72 *n*- prep., n. 4; Greek of Deut. ii 14 does not support Sethe's proposal; *nn*- is merely for *n*-, the article, as often in this MS.—P. 74 *ne* inter., incorrect for *ene*.—P. 75 *πηε* 'lord'; non-existent; MS. has *πηε*.—P. 77 *πεμωου* *οβριον* (Is. lix 5); a most unlikely word. Tattam's text evidently not in order, but so far I have failed to emend it! (A. Schulte offers as usual no help).—P. 78 *νεε* 'yea'; *n* here prob. object prefix after *ωπε* (though only BUDGE, *Misc.* 313 gives the corresponding *πυμον* in Mat. v 37). In P. Bruce 102 *πετνε* presumably an error.—P. 84 the MSS. have B *ραμπι*.—*ποε* (B); a puzzling survival from Lacroze. The prints (Prov. vi 25) have *εοτρι*.—P. 85 *εμνη* Jud. iii 24. The MS. more than usually illegible here. I have tried to read *εμνη* (cf. vars. *+ἐπορεύθη, +καὶ ἐκπορεύμενος*), but cannot be certain of it.—*περνε*; in Zech. vii 5 this renders *κόψησθε*, not *ηστέουσθε* (cf. B).—P. 87 *ποσε*; ? erroneous; two MSS. here read *πονσε*.

P. 88 *μα ποε*, Zoega 501 (presumably the place intended) is not 'bread,' but 'reeds'; so too in Schen. iv (sic) 152 *οε* is 'reed.'—P. 89 *οε*; non-existent; Tattam has *ωε*, as one would expect.—P. 90 *αε*, in *μπτα*; non-existent; read *αετ*=*αετ* *ῥαθυμούντων* and cf. Hos. viii 8.

P. 91, n. 9; Sethe must mean *πωρε* (not *πωε*), the usual word for *δάκρυον*.—*πελεπενω*; I *μολο-πείων*, a word badly mishandled, as Kircher 197 and vars. show.—P. 93 *παπας*; if this is to be included, why not *πρεσβύτερος*, *διάκονος* and the rest?—P. 94 *περικοε*; v. *κοε* above.—P. 95 *φρη*; Lagarde and Cod. Vatic. read *φρη* here.—P. 96 *πατσεκω*; cf. p. 114, where a different (and preferable) etymology is proposed ('he of the kiln').—*πομ* should be *πομ* (this is now published in my *Theol.*

¹ The translator (in BM. no. 726) did not understand it; he has ماذا اصاب فيها فوجد فيها الحية

Texts p. 40).—P. 97 **πω** (A); read **πω**.—**φασερ**; the **εβολ** should join following **οτε**. No noun is known.—P. 98 **πω**; 'spread out' seems the meaning, rather than 'separate.'

P. 100 **ρω**; the example on p. 303 is not prefixed, but as usual suffixed after **εσ** **ρηντε**.—p. 101 **ραχι** (A); thus would Spiegelberg emend **ραχι**. But 'burn' and 'bake, cook' are not identical and **ραχι** in this place = S **κροτα** (Paris 44, 116), which might well be a product of the same root¹.—P. 102 **ρομπι** (*sic*) **ποτωμ** 'a vessel'; I cannot but think this fantastic. It seems more probable that 'a year's alimony' will eventually be paralleled from other (?demotic) contracts.—P. 103 **ρησι**; Lagarde and Cod. Vatic. have **ρησι** here.—P. 104 **ρμρατο**; this is S, B is **ρεμρατο**.

P. 110 **τεο** (A); this is **τεο** in Jon. iv 11 and in the Berlin Proverbs (which, thanks to Prof. Steindorff, I have been able to read); indeed it is given so in the present work, p. 152.—P. 113 **σεπ** **ανεπ**; second thoughts are best; v. n. 2 and cf. Hos. vii 12, xi 4.—**τεστο**, **τασο** surely appear here by mistake; cf. p. 124.—P. 114 **сenez** should be *stat. absol.* (Stern § 75), since **μ** follows.—**σελε**; read **σελα**, the following **ε** belonging to the verb.—**κολ** always masc.; Peyron is wrong.—P. 115 **ελητε** I take to = **ελητε**.—P. 116 **ωλ** 'wipe out' (not 'destroy') and **ωλ** 'smear' appear to me to be the same word.—P. 117 **εμαντε** (A) should be **εμαντ**, followed by **εν** (*Elias* 22, 6); cf. the S version, BUDGE, *Bibl. Texts*, 271, 17.—**ωμω** the 'soaking (of rushes for) mats'.—P. 118 **самаθε** in form unlike a Coptic word. Possibly a distortion of (δε)ξμενῃ, which in Zoega's passage it translates (*PG*. 65, 100). It recurs in BM. 1114.—P. 119; I find **επτε** in S only; Ps. viii 3 (Peyron) apparently an error.—P. 120 **ρente** = 'lay foundation,' not 'make double'.—P. 121 **ωπ**; not 'rebel,' but 'kohl stick.' Kircher, misreading *marid* for *mirwad* (as Kabis and Labib have realized), has misled Möller and Sethe (*Gött. Nachr.* 1916, 113). Its relation to **ωπ** 'eyelid' and **ωπ** 'dip' remains to be ascertained.—**ωπ**; all Peyron's instances should, as more critical editions show, be **ωπ**.—**сapc** (A); misread (or ?miswritten) for **ελησι** (*ελσις*).—P. 122 **сipa** = ? *σipa*.—P. 123 **сopm** 'lees' of wine &c., not 'leaven'.—**сapm** ? = *σapm* (*σapm*), a bird of some sort. (Bscial is just wrong in identifying this with *χην*, which, in the preceding line, is translated 'big duck.' For the same Arabic *batt* Kircher 169 gives *κύκνος*).—**сapc**; cf. *σeplc*.—P. 125 **снт** 'dung'; I think this is to be read **п-снт** (the asp hides in the sand, or even in 'the ground'). The full article **пс-** would be out of place with **снт**.—**сanthot** (*sic* in three chief MSS.); cf. Lev. iv 7, where **сapснт** translates this same Greek. One suspects some deep-seated misreading. Ex. xxxi 11, xxxiv 15 (19) suggest **сapпhот**, Eccli. xlix. 1 ***(т)сapпhот**.—P. 127 **сeлe**; surely at best but a var. of **сeлe**.—P. 128 **сtate**; some MSS. of Is. iv 12 support this, others have **таде**; which is right?—P. 129 **ρμсoотп** *γνωριμος*; 'acquaintance,' not 'kinsman'.—P. 130 **сay** 'breasts'; non-existent; read **сayy**, for it translates *τροφιων* (Cod. Græc. Paris. 1596, 445 b).—P. 131 **сoye** pl.; not found. Ps. ciii Budge (collated) and Wessely have **сoye**.—**сoyт**; n. 13 is misleading, for only Trl. 599 has **шoyт**.—P. 133 **сaсeт** pl. (from Deut. xx 8); non-existent; result of wrong division.—**сdhot** presumably a misprint; Peyron's **сdот** is upheld by Lagarde and Cod. Vatic.—**сpе**; there seems to me to be but one word involved here, meaning (1) 'depart, remove oneself,' (2) 'be removed' (from one's senses, *εξεστάναι*).—P. 134 **сdеlеl** (Peyron, from Zoega, ? from Tuki); non-existent; MS. has **дeлeи** = **дeлeи** 'navel'.—P. 135 **ма псаppe** is B not A, which is **ма мпсаppe**—**сpотopт**; B *qualit.* always **сpотopт**.—P. 136 **шoxn** 'held together'; this meaning not found; in Sap. i 7 read (with Lagarde) **шon**, in Ac. Mart. i 49 read **шoxт**. W. E. CRUM.

(To be continued)

Egyptian self-taught (Arabic). By Major R. A. MARBRIOTT, D.S.O. Fifth edition, with supplementary vocabularies, by NEGIB HINDIÉ. London: Marlborough and Co., 1921. Cr. 8vo. 96 pp., red cloth 4s., wrapper 3s.

A guide to the language with vocabularies, conversations, coins, weights and measures; etc. The words are printed in European characters, neglecting the finer distinctions of the Arabic consonants. The rules are given in a simple form. The book is not without errors in detail, as in the account of *māsh* (= *mā-hūwa-shay*) in the prefatory note, the frequent omission of the mark over long vowels, and confusion of *k* and *q*—errors which it is sad to see in a book which has reached its fifth edition. It is well planned for self-teaching, and he who has mastered it will have a very useful command of the "vulgar" tongue.

F. LL. G.

¹ It is true that in Mich. i 7 **ραχот**, i.e. S **рокот**, is written **рахот**.

² A strange misunderstanding of Peyron's is **лапто**, p. 82. This in Paris 44, 56 b is equated with *tziknas*, i.e. *κύκνος*, 'a white bird,' which shows the Coptic to be **σραλнт п(а)латне**.

³ For **снт** as 'ground' cf. **пкотн гпснт**, **ерератг гпснт** etc.

The first of these is the fact that the United States is a young nation, and its history is therefore a history of growth and development. The second is the fact that the United States is a large nation, and its history is therefore a history of expansion and conquest. The third is the fact that the United States is a diverse nation, and its history is therefore a history of conflict and compromise.

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TWENTY-FIVE YEARS OF PAPYROLOGY¹

BY PROFESSOR A. S. HUNT, D. LITT., F. B. A.

In the course of the present year the Graeco-Roman Branch of the Egypt Exploration Society reaches the twenty-fifth anniversary of its foundation; and it was thought that this would be a fitting occasion for taking stock of our situation and for a review of what the Branch has succeeded in accomplishing during this first quarter century of its existence. Such a review must, I fear, involve a considerable use of the first person, and the reader is therefore begged to bear in mind that for such measure of success as has attended the efforts of Professor GRENFELL and myself, the Society and its subscribers, who have enabled our work to be carried on, are primarily responsible. We have been their instruments, and to them belongs an ample share of the credit of what has been achieved.

It may be worth while to recall the circumstances which led up to the foundation of the Graeco-Roman Branch. In the winter of 1895—6 the Egypt Exploration Fund, as it then was, undertook a small expedition in which Dr. HOGARTH, Dr. GRENFELL and I myself took part, for the discovery of Greek papyri in Egypt. That venture marked an epoch, because it was the first expedition definitely organised for the acquisition of papyri, which during the preceding years had been coming in increasing numbers to the museums of Europe, but only as the result of the unskilled work, sometimes authorised but more often illicit, of natives, whose casual methods entailed the destruction of much valuable evidence. Professor PETRIE had indeed by a happy chance discovered the papyri known by his name in the mummy cartonnages of Gurob; but of the conditions of the discovery of papyri in town sites practically nothing was known before our first excavation. We had to learn them for ourselves by experience.

The ground chosen for this initial experiment was the Fayûm, which had recently come in for a good deal of attention from native diggers, and was known to have produced large quantities of Greek papyri; moreover, that district appeared to offer the best chance of a Ptolemaic cemetery like PETRIE's at Gurob. The results, though encouraging, were by no means spectacular. A couple of town sites in the north east corner of the Fayûm, Karanis and Bacchias, were identified, and a fair number of papyri obtained which were exhibited in London and subsequently included in our publication *Fayûm Towns*. We had, however, acquired useful experience which was to stand us in good stead later on, and the outcome appeared sufficient to justify a fresh attempt. Accordingly in the following year 1896—7 when a concession was obtained for the important, but quite untried, site of Behnesâ or Oxyrhynchus, arrangements

¹ A lecture given for the Society on Feb. 23, 1922.

were made that Professor PETRIE, who was then working for the Fund, should investigate the ancient Egyptian cemetery, and that Dr. GRENFELL and I should dig for papyri in the very extensive mounds of the ancient city. Professor PETRIE soon found that the site was worthless for his purposes and proceeded elsewhere, and GRENFELL and I, after some unfruitful work in the necropolis, settled down on the town mounds, fortunately beginning on one of the most productive of them. In the course of the first two or three days we had found the so-called "Logia," and a leaf from a third-century copy of St. Matthew's Gospel; and by the end of three months we had secured twenty-five large packing cases of papyri, some of which are still unopened. Our rough estimate of the spoil was about 300 literary pieces and 2000 documents, figures which were certainly not exaggerated.

On the success of that memorable season, which far surpassed all anticipations, the Graeco-Roman Branch was founded. In the following July the "Logia" or "Sayings of Jesus" were published with a leaflet announcing the establishment of the new Branch, and inviting subscriptions. The "Logia," of which several impressions were quickly exhausted, proved a splendid advertisement, and under the fostering care of the honorary secretary, the late Mr. J. S. COTTON, the Branch was soon safely launched with satisfactory support both from institutions and individuals, a few of whom had sufficient faith, or sufficient prevision (whichever it was they have certainly had no cause to regret it), to become life members. Twelve months later the first Oxyrhynchus volume was in the hands of subscribers.

As stated in the prospectus of the Graeco-Roman Branch, it was from the first intended that further explorations should proceed *pari passu* with the publication of the papyri already secured, and accordingly during the next ten years GRENFELL and I regularly spent the winter months excavating in Egypt. In 1898 we were back again in the Fayûm. Having obtained from Oxyrhynchus such a large collection of the Roman and Byzantine periods, we were anxious, if possible, to add some Ptolemaic papyri, for which the likeliest place seemed to be a Fayûm cemetery which might produce mummy-cartonnages in sufficiently good condition. During the next four seasons, therefore (1898-1902), we worked systematically round the whole province, examining the sites on the edge of the desert. The 1898 papyri, from Kaşr el Banât (Euhemeria), Harit (Theadelphia) and Wadfa (Philoteris) were edited in *Fayûm Towns*; the rest, including a quantity of cartonnage found at length on the east side of the Fayûm, and numerous Ptolemaic documents from mummied crocodiles which were discovered in the south, still await publication. In 1902 having, as it seemed, sufficiently investigated this district, we migrated to el Hibeh in the Nile valley, where we had ascertained that a find of Ptolemaic papyrus cartonnage had been lately made by natives. There we spent portions of two seasons, some of the results of which are embodied in Part I of the *Hibeh Papyri*, while a further instalment remains for a future volume. When the work at el Hibeh was brought to a conclusion, we returned to the site of Oxyrhynchus, which very fortunately had remained practically untouched since our departure in 1897. Apparently both European and native papyrus-seekers had assumed our original excavations there to have been more exhaustive than as a matter of fact they were, and it was only shortly before our reappearance on the scene that local diggers had begun to turn their attention to a large mound to which we had given a very short trial.

Work at Oxyrhynchus was continued for five more seasons, and with marked success. The yield in these later years perhaps never quite equalled the astonishing flow of the original season, but very large quantities of papyri were obtained, including in the last two winters some rich pockets of literary remains which have supplied the most valuable texts in our subsequent publications. Even when we finally left the site it was evident that there was still a good deal to be found; an Italian expedition has in fact since found some of it, and the natives, who are now busily clearing the site for agricultural purposes, continue to obtain more, which eventually comes into the market. But the return in papyri for the outlay on the excavations had become increasingly smaller during our final season.

In 1907 Dr. GREENFELL's health temporarily broke down, and I was subsequently too much occupied with editorial duties to be able to continue the annual visits to Egypt. The task of further exploration was therefore entrusted to Mr. JOHNSON, working the first year (1909—1910) with Dr. BLACKMAN and in the three following seasons by himself. Some useful additions to our stock of Ptolemaic cartonnage were obtained from the cemeteries of Heracleopolis and Aphroditopolis, and a fair quantity of papyri, both literary and documentary, from the town mounds of Antinoë. Since 1913 excavations have not been resumed. A vast mass of material had been acquired, and in the absence of a specially attractive site for further operations, with their greatly enhanced costliness owing to the rise in rates of wages in Egypt, it has seemed advisable, for a time at any rate, to concentrate on the task of publication.

Such, in brief, is the record of the Branch's field work. As I have said, it fell to us to lead the way, and in this instance the pioneers were rewarded by an unequalled harvest. French, German and Italian explorers were soon induced by our good fortune to take a hand and to imitate our methods; but though they have made valuable discoveries, they have never quite succeeded, I think, in rivalling our results either in quantity or quality. We had the advantage of being first in the field and the good luck to hit on betimes and to retain the site of Oxyrhynchus, which besides producing a multitude of official documents, has proved by far the most fertile source of literary remains which has come to light in Egypt.

To turn now to our publications. The first Graeco-Roman memoir, namely, *Oxyrhynchus I*, was issued in 1898, and since that there have been seventeen more memoirs including two double volumes, *Hibeh I* and *Tebtunis I*, the latter being issued in combination with the University of California to which those particular papyri belonged. In these volumes over 2600 texts have been published and described, comprising many literary pieces of importance. Let me briefly recall some of these. In the theological section there were the two series of the Sayings of Jesus, which, I suppose, have excited more general interest and given rise to more protracted discussion than any other individual papyrus. Discussion is by no means over yet. Last year there appeared Mr. EVELYN WHITE's new edition with an extensive commentary, for the Cambridge Press; more recently still Dr. SCHUBART of Berlin has made a fresh attempt at reconstruction of one of the more mutilated passages, and in a lecture given in Oxford and printed in the *Expositor* for February, Dr. BARTLET has proposed to refer the Sayings to the so-called "Gospel of the Twelve" which he regards as an early Alexandrian adaptation, for local use, of the more historic and canonical tradition. Evidently the problems raised by the discovery of the "Sayings" retain their interest.

Another notable fragment from Oxyrhynchus is the well-preserved leaf from a lost gospel published in Part V, and relating an encounter between our Lord and a chief priest in the Temple at Jerusalem. With regard to the value of that fragment, the prevalent opinion seems to be that the credibility of the author's remarkably circumstantial details concerning the temple and its ceremonial was rather underestimated in our edition, and one critic has even maintained that the fragment is here a better authority than St. Matthew. To Oxyrhynchus again we owe the earliest existing evidence for the text of both the Septuagint and New Testament. The oldest Biblical papyrus so far discovered is probably some fragments of the book of Genesis in vol. III, which are to be placed in the earlier decades of the third century, if indeed they do not go back to the second. To the third century too belong fragments of St. Matthew's and St. John's Gospels, and of several of the Epistles. A long piece of the Epistle to the Hebrews of a somewhat later date (about the middle of the fourth century) is especially useful, because the Codex Vaticanus, with which the papyrus was apparently in close agreement, is here defective. Of non-canonical literature I may note remains of two new versions of the book of Tobit, and a small leaf, only just published, from the *Didache*, older this by some eight centuries than the single manuscript hitherto known of that treatise. The Oxyrhynchus collection, further, has brought several fragments in the original Greek of Christian books extant in translations, affording instructive tests of the translator's accuracy. Such are pieces of the *Apocalypse of Baruch*, previously preserved only in Syriac, of the treatise of Irenaeus against heresies, extant in Latin, and of the conclusion of the *Shepherd of Hermas*, which was extant in Latin and Ethiopic; in this last instance a fragment of the lost original from Oxyrhynchus combines with another in the Amherst collection to convict anew the notorious dealer, Simonides, of forgery. The most recent example of this class of literature is perhaps also the most valuable, a fragment of the Greek original of the *Apology of Aristides*, edited in Part XV, which supplies a crucial test of the rival versions of that important work and marks a new phase in its textual criticism.

One or two notable liturgical texts also call for mention. A third century fragment of a Christian hymn with the musical notation, lately published in Part XV, provides what is much the oldest specimen of church music. Apart from its intrinsic interest this affords a striking indication of the advanced stage of development of the Church at Oxyrhynchus at that early period. Another papyrus concerning the local Church and, though not literary, of special interest to the liturgiologist, is the sixth-century calendar of chief services in a number of Oxyrhynchite churches. This is much the oldest ecclesiastical calendar from Egypt and, besides its long list of churches, supplies valuable information concerning the various festivals.

In the classical section we may point to several first-rate discoveries. From Oxyrhynchus has come that most significant addition to dramatic literature, the *Ichneutae* of Sophocles, which has happily overthrown the unique position previously occupied by the *Cyclops* of Euripides, and affords for the first time a fair idea of a Sophoclean Satyr play. A second notable accession to the remains of Greek drama is the extensive remains of the *Hypsipyle* of Euripides, from which the plot of the tragedy can in large measure be reconstructed and which include some connected passages of considerable beauty. Substantial pieces of the *Perikeiromene* and the *Colax* of Menander are very useful supplements to the Cairo manuscript, and rank high among the surviving

fragments of this most popular of the Greek dramatists, who has been so fortunately resuscitated during the period under review. In lyric poetry too, the gains are striking. Oxyrhynchus has actually produced six distinct papyri of Sappho and four of Alcaeus; and although they do not contain many consecutive passages or a large number of perfect verses, they have greatly augmented the remnants and extended our knowledge of the style and vocabulary of the great Lesbian poets. Of Alcaeus indeed the surviving fragments have been almost doubled in bulk by recent discoveries, which have also added two new forms of Alcaic stanza, one, as is now seen, imitated by Horace, the other quite unknown. Another less familiar early lyrist, Ibycus of Rhegium, is probably exemplified in the most recent volume by a consecutive piece containing over forty complete verses, that is about four times the length of the longest fragment previously extant. But the greatest gainer has been Pindar, whose fragments now present an appearance very different from that of twenty years ago. In BERGK's *Poetae Lyrici*, Pindar's *Paeans* were represented by twelve verses. They can now muster nearly 300 complete and many more broken lines. Of his *Partheneia* and *Dithyrambs* too, substantial pieces have been recovered, by which a real insight into the poet's method in those classes of composition is now first afforded. Nor has Bacchylides been left out quite in the cold; of him we have found two papyri, one covering a passage already known from the British Museum manuscript, another giving some imperfect specimens of his *Skolia*, a class which was not there represented. Clearly the great lyrists were still in much demand in the Roman period at Oxyrhynchus, and even such a minor light as Cercidas of Megalopolis, a once shadowy figure who thanks to one of our papyri has now assumed substance and definition, found his readers.

Another poet of the decadence for whom the Graeco-Roman Branch may claim to have done much is a person of far greater literary eminence than Cercidas, Callimachus. His surviving remains were of course already considerable, but the ornate formality of the *Hymns* and the restricted compass of the *Epigrams* hardly permitted a just estimate of his poetic quality, and still less was this revealed in the long series of disconnected fragments which are for the most part grammarians' citations in illustration of a rare word or phrase. With the recovery of considerable portions of the *Aetia* and *Iambi*, now followed in the recently published volume by fragments of a practically unknown poem, the *Victory of Sosibius*, the material at the critic's disposal has become more adequate, and the facile ingenuity and polished skill of the poet, as well as his limitations, can be better appreciated. One of the Oxyrhynchus papyri fortunately includes a substantial part of what was probably the most celebrated in the whole of Callimachus's writings, the love story of Acontius and Cydippe. The grounds of its fame can now be discerned.

In prose, acquisitions of the highest rank happen to have been scarcer. First in importance, no doubt, stand the lengthy historical fragments which for want of agreement on a more precise name are commonly known as those of the Oxyrhynchus historian, or as the *Hellenica Oxyrhynchia*, and deal with the events of the years 396—395 B. C. On the question of the identity of the writer much discussion has not yet produced any large consensus of opinion, though latterly evidence has been accumulating in favour of Ephorus. If, as I myself now have little doubt, Ephorus was the author, then we have obtained for the first time an adequate specimen of the work of a writer who ranks high in the list of Greek historians. In any case, whether Ephorus or not, the

discovery makes material contributions to the history of Greece at the beginning of the fourth century B. C., and the chapter on the constitution of Boeotia is particularly illuminating. Moreover this author is now seen to be one of the chief sources of Diodorus; and the fragments thus enable us to discern how that compiler, upon whom our knowledge of the events of the third and fourth centuries B. C. so largely depends, used his authorities. In the department of philosophy some fairly substantial fragments of Antiphon Sophistes, besides adding to the remains of early Greek prose, throw a welcome light on the outlook of one of the older sophists, whose teaching proves to have been much more unorthodox than had been supposed. In oratory, some new fragments of Lysias are of sufficient compass to convey an idea of the drift of three of his lost speeches. A life of Euripides by Satyrus provides a double surprise in being not only cast in the form of a dialogue, but a dialogue in which one at least (perhaps more) of the interlocutors is a woman. That a representative of the female sex should take part in a discussion of the career and character of the reputed misogynist seems appropriate enough, and perhaps it is not unduly fanciful to see a special significance in the name under which she is introduced, Eukleia, or Fair Fame. At any rate, this find provides a new chapter in the history of biographical composition.¹

There are many shorter pieces of which some mention might well be made: for example, a valuable fragment of Aristoxenus, the chief ancient authority on metre; or the precious scrap of a list of Olympic victors, which fixes several doubtful dates in connexion with Pindar and Bacchylides and offers some important evidence on the history of Greek sculpture; or the fragments of Heraclides Lembus' epitome of Hermippus, which solve a dispute concerning the nature of his epitomes of other biographers; or the instructive specimens, included in the latest volume, of the work of early lexicographers; or the papyrus containing, apparently, acting copies of a farce and mime, which provides an example of the Greek mime as actually performed to a popular audience in the second century. These will serve as illustrations of the wide range of the discoveries and the manner in which they help to fill, in this direction or in that, the gaps in our knowledge. And let us not forget to take credit for the one outstanding literary find in Latin, an epitome of some of the lost books of Livy. Another fragment of a lost Latin work was published in the last volume, and though of less general interest than the Livy is of importance to the jurist. This is a leaf from an index to the Codex of Justinian, not however to the second edition, which is what has come down to us, but to the first edition issued five years before.

Of extant classics there are of course many noteworthy representatives in our publications, from Homer downwards. While in general confirming tradition, these texts sometimes bring valuable new readings or confirmation of modern emendations. One conspicuous example may be cited by way of illustration, a long fragment from el Hibeh of the anonymous treatise on Rhetoric addressed to Alexander, and older by no less than seventeen centuries than any previously known manuscript of the treatise. It confirms eight conjectures, and in a dozen or more passages gives what is no doubt a textual improvement. This particular papyrus, again, well illustrates a second important result of the new data, namely the danger of pinning one's faith to any single manuscript or family of manuscripts. That may be all very well as a working principle, but as

¹ Cf. *New Chapters in the History of Greek Literature* edited by J. U. POWELL and E. A. BARBER, where other recent discoveries are also reviewed.

the papyri have proved over and over again, no one manuscript or class of manuscripts, whether classical or Biblical, holds any monopoly of the truth, and the prudent critic will not neglect the testimony of witnesses commonly reckoned inferior. Owing to its very early date, again, this Hibeh papyrus of the *Ῥητορικὴ πρὸς Ἀλέξανδρον* has an important bearing on the disputed authorship of the treatise, and shows that whether by Aristotle or Anaximenes or someone else, it must at any rate have been composed not later than the fourth century B. C. Other striking cases where current views as to date of authorship have had to be revised in the light of the new evidence, are those of the romance writers Chariton and Achilles Tatius. It is now ascertained from papyri from the Fayûm and Oxyrhynchus that Chariton wrote not later than the beginning of the third century and Achilles Tatius not later than the beginning of the fourth. A recent critic had ventured to bring Achilles Tatius down a couple of centuries later than that. These chronological modifications of course affect profoundly the history of the development of Greek Romance.

In connexion with papyrus datings, I may briefly refer to the many contributions made by our publications, which include numerous plates of specially selected facsimiles, to the science of palaeography. For the chronology of literary hands in particular, where what is most needed is the multiplication of fixed points, of examples dated precisely or within narrow limits, our collections have been decidedly productive. It would perhaps hardly be too much to claim that, in so far as the views expressed in that standard authority, Sir FREDERIC KENYON'S *Palaeography of Greek Papyri*, now need qualification or revision, it is largely in consequence of the operations of the Graeco-Roman Branch.

So far I have been speaking only of literary papyri; there remain the non-literary, which occupy a large space in our publications. These documents extend from the beginning of the third century B. C. to the eighth A. D., and illustrate with a surprising completeness the various activities of official and private life. The Society's volumes contain not only the lengthiest series of such texts, but, it may fairly be maintained, on the whole the most important. For instance, in WILCKEN and MITTENS'S standard selection of representative texts, approximately one quarter of the whole is taken from our publications. Or again, in a recent article in which all the known examples of the edicts issued by the Roman prefects of Egypt were collected, it was noticeable that over one half of them had been discovered and edited by ourselves. Practically every monograph in which the papyrus evidence is utilized, tells a similar tale; the Graeco-Roman memoirs will mostly be found bulking large in the list of authorities. It is, moreover, gratifying to know that the method of publication which we have from the outset adopted for these documents, with a readable text, translations and concise commentaries, has met with general approval, and indeed, to a considerable extent, with that sincerest form of flattery, imitation.

As is well known, our papyri when published are periodically distributed among various museums and libraries. The authorities of the British Museum have been good enough to organize, in connexion with this twenty-fifth anniversary, a special exhibition of the papyri which have been acquired by presentation from the Egypt Exploration Society. The exhibition will remain open through the summer, so that anyone who is interested may have an opportunity of seeing the scope and value of the accessions, especially the literary accessions, to the national collection as a result of our work. And

let it not be forgotten that these specimens represent but a small portion of the total number distributed, and that the Bodleian Library, for instance, has benefited almost to an equal extent. We have, however, aimed at keeping accessible either in London or Oxford the more important and difficult of the texts, those on which questions of reading would be most likely to arise. Hence not a few of the more notable discoveries which have been mentioned above will be found in the London exhibition.

With regard to the future, the question of further excavations at present remains, as has been said, in abeyance. Our first duty is to publish what we have found, and the extravagant cost of printing now prevailing leaves no balance for fresh field work, which moreover is itself a much more expensive business than it was before the war, so that a remunerative site would not be readily discoverable. However, we are not likely for a good many years to come to suffer from lack of material. How many more volumes will be needed for the adequate publication of the *Oxyrhynchus papyri* is not easy to estimate, but there may well be as many more as have been already issued. Neither can any confident prediction be given as to the relative value of what has now been edited and what is yet to come. It may turn out that we have seen the best of the literary pieces, but that many remain admits of no doubt. Then, besides the *Oxyrhynchus* collection, there is a quantity of cartonnage from the Fayûm, el Hîbeh, Ahnâs and Atfih, to be dealt with, as well as the papyri found by Mr JOHNSON in the mounds of Antinoë. The hope may therefore be indulged that the fiftieth anniversary of the birth of the Graeco-Roman Branch, when it arrives, may find another long list of discoveries to be recorded, worthy to stand beside those to which we can point today.

Be that as it may, I trust that it will be conceded that the Branch has already justified its existence, and that its subscribers, whether they are interested in Biblical and Christian studies, in the Greek language and literature, in the history and institutions of Graeco-Roman Egypt, or in the common life of the people under Ptolemaic and Roman rule, in short, wherever their special interests may lie, have, to put it in the lowest terms, seen a good return for their money.

Like other learned societies, ours has inevitably been feeling the effects of the war. The continental support which we enjoyed has naturally dwindled; at home we have lost some subscribers, unhappily, by death; and as everyone knows, subscriptions offer one of the easiest of economies. These losses are not being made good so fast as could be wished, and unless the output of the coming five-and-twenty years is to fall short of the last twenty-five, it is essential that the gaps should be filled. If the record of the Graeco-Roman Branch may legitimately be regarded with a certain pride and satisfaction, we may not unreasonably ask for increased support for the future.

THE LIBRARY OF A GREEK OF OXYRHYNCHUS¹

BY SIR FREDERIC KENYON, K. C. B., D. LITT., F. B. A.

The great work of the Graeco-Roman Branch of the Egypt Exploration Society, during the twenty-five years of its existence, has been the discovery and publication of the Oxyrhynchus Papyri. It is difficult at the present day to realise how epoch-making that work has been, and how special is the character which it still possesses. The great discoveries which preceded it had been the product, either of an isolated group of mummy cartonnages, like the Petrie Papyri from Tell Gurob, or of a chance discovery of a jar containing documents, like those of the Serapeum at Memphis, or of rolls found in a few tombs, like the Hyperides manuscripts of the middle of the century, or the British Museum acquisitions of 1890. The Oxyrhynchus papyri belong to a different category. They are the fruit of a careful and scientific examination of the rubbish heaps surrounding one of the more important towns of Graeco-Roman Egypt. They are not of a single period, nor do they form a homogeneous group. They range in date from the first century before Christ to the seventh century of our era, from the beginnings of Roman rule to the Arab conquest. They include literary texts, both Christian and pagan, official and administrative documents, legal and commercial papers, pecuniary accounts and private letters. They cover, in fact, the whole range of life.

It is this characteristic, apart from the intrinsic value of many of the individual texts, which gives them a special interest. They show us a section, as it were, of the life, the thoughts, the interests and the occupations of a Graeco-Roman provincial town. They have a human interest, over and above the contribution which they make to our knowledge of Greek (and occasionally of Roman) literature, of Roman and Byzantine administrative methods, of law, of economics, and of palaeography. From this point of view it is worth while to keep them isolated from the masses of papyri which have accrued from other sources, and to study them as a group by themselves.

I propose to take as my subject one aspect only of Oxyrhynchian life, namely its intellectual character; to see what evidence the rubbish-heaps of the town give us as to the means of intellectual culture which a Greek inhabitant may have had at various periods. I do not say that it can be a complete picture. Not every book in Oxyrhynchus need have found its way to the rubbish-heap. Books which we know to have been in existence elsewhere, at Hermopolis, at Antinoopolis, at Aphroditopolis, may equally have been known there, though we have no direct evidence of the fact. But the knowledge, so far as it goes, is definite. We have at least a minimum level of Greek culture in an Egyptian provincial town; and though we cannot argue thence as to the level of

¹ A lecture given for the Society on May 2, 1922.

scholarship at Alexandria, we are entitled to apply our results to provincial Egypt in general, from the First Cataract to the Delta. And from no other town but Oxyrhynchus is the evidence at all so full and so comprehensive.

Another limitation of our knowledge must also be mentioned by way of warning. The publication of the Oxyrhynchus papyri is very far from being completed. At Oxford alone, we are told, there are materials for at least as many more volumes as those which have already appeared: and when the Society abandoned the site, an Italian organisation similar to our own took it up, and has already produced some of the fruit of its gleanings. Hence it is possible, and indeed, I suppose, certain that fragments of literary works hitherto unrepresented will come to light. But the present generation cannot wait until the stream has ceased to flow. Here, as in other fields of knowledge, it is useful from time to time to make provisional surveys of results, and to leave future years to correct and amplify our conclusions in the light of fuller evidence. It is only necessary to warn one's readers that the conclusions here offered are provisional and make no claim to finality.

The first step is to see what the bulk of our material amounts to. Omitting on the one hand all Homeric papyri, since the presence of Homer wherever the Greek language was spoken and at all periods is unquestionable, and on the other a few scraps which can only doubtfully be classed as literature, the total number of literary manuscripts represented is 390. Some of them are substantial rolls, such as those of Plato's *Symposium* or the *Hellenica* which we may now attribute with fair confidence to Ephorus; others are mere scraps containing a few mutilated lines; but all alike testify to the existence in Oxyrhynchus of manuscripts, once complete, containing the works represented by them. The merest scrap of an ode of Sappho is as complete evidence of a manuscript containing at least one of the books of her poems as if we had the entire roll. So that we already know of 390 literary manuscripts which were extant in Oxyrhynchus in the Graeco-Roman period.

The next point is their distribution in time. Only six are assigned by the editors to the first century before Christ. Of the rest, recognising that in many cases it is uncertain whether a papyrus belongs to the end of one century or the beginning of the next, and accepting in such cases, for the purpose of these provisional statistics, the earlier possible date, 38 are assigned to the first century, 113 to the second, 121 to the third, 51 to the fourth, 48 to the fifth, 12 to the sixth, and one to the seventh.

Since Messrs GRENFELL and HUNT reported, as long ago as 1907, that all the mounds containing first to fourth century papyri had been examined, and even in the Byzantine mounds only those portions had been neglected which had every appearance of being unprofitable, we may fairly regard these figures as representative, as to both the character of their contents and their chronological distribution. The first and most obvious conclusion from them is that we must regard the second and third centuries as the period during which Greek culture flourished most at Oxyrhynchus. It is perhaps noteworthy that the disturbed political condition of the Roman Empire in the third century appears to have had no injurious effect in this respect. The period of the evanescent emperors who followed Severus is hardly less productive of classical Greek papyri than that of Trajan, Hadrian and the Antonines, the golden period of the Empire. But the reign of Diocletian, which introduced so marked a change in administration, and even in handwriting, must be taken as the

beginning of an age in which Greek culture underwent a serious decline. Two causes may have cooperated to produce this result. The economic collapse, of which there is evidence in a wholesale depreciation of currency, to which no parallel can be adduced except in Central and Eastern Europe at the present day, must have produced conditions highly unfavourable to education and literature. And the adoption of Christianity as the official religion at the end of the first quarter of the fourth century introduced a new and dangerous competitor. The multiplication of books of Christian literature was no longer exposed to interruption by official interference, and to the danger of wholesale destructions in times of active persecution, as in the reigns of Decius and Diocletian. Consequently we shall find, when we analyse these figures more closely, that a considerable proportion of the manuscripts of the fourth and fifth centuries contain works of Christian literature, and that the decline of classical literature is even more marked than is shown by the reduction in the total numbers.

To this more detailed analysis we may now proceed, with a view to seeing what books were current in Oxyrhynchus in successive periods, and to what extent works now lost were still extant. The caution must, however, be repeated that our evidence does not give us the whole truth. We have no complete libraries, but only the debris of libraries. Works that were commonly known may be expected to be represented there, and possibly some works of which only a few copies existed; but there may have been other works of which a few or single copies were possessed by individuals which did not find their way into the rubbish-heaps. These dry and dusty mounds preserved their fragmentary treasures, while many precious rolls may have perished in the moist strata underlying them, and possibly others in the damp soil of the cemetery.

If the small group of papyri assigned to the first century B. C. be attached to those which are dated as certainly or possibly belonging to the first century of our era, we have for this earliest period evidence of the currency at Oxyrhynchus of the following authors, in addition to Homer: Alcaeus, Alcman (probably), Bacchylides (the *Scolia*), Aristophanes (perhaps), Callimachus (the *Aetia* and *Sosibi Victoria*), Demosthenes (two MSS. of the *De Corona*), Euripides (*Orestes* and *Phoenissae*), Hesiod (*Works and Days*), the Epistles attributed to Hippocrates, some lyrics plausibly assigned to Ibycus, Isocrates (*Περὶ Ἀριδόσεως* and *Trapeziticus*), Menander (*Περίεργον*), Pindar (*Παρθέναι* and *Paeans*, besides a Paean of uncertain authorship), Sophron (*Mimes*), Theocritus, Thucydides (no less than five manuscripts), and Xenophon (*Hellenica*, *Oeconomicus* and *Memorabilia*); together with three unknown comedies, a collection of epigrams, three historical works, three books of lyrics, one of philosophy, two tragedies, a work on mythology and a commentary of uncertain character. It will be observed that no less than 27 of these manuscripts, out of a total of 44, contained works which have not otherwise come down to us. Poetry shows a marked predominance over prose, and lyrics over other forms of poetry; and while Aeschylus and Sophocles are notable absentees from the poets, Herodotus, Plato, Aristotle, and all the orators except Demosthenes and Isocrates make more formidable gaps in the list of prose authors.

For the second century the list is much longer. The authors that can be identified include Aeschines (two MSS. of the *In Ctesiphontem*) and his namesake, Aeschines Socraticus, Alcaeus (four MSS.), Apollonius Rhodius (3), Aratus, Archilochus, Aristotle (*Προτεπαιρέσις*), Babrius, Bacchylides (*Dithyrambs*, a fragment of one of the odes in the great British Museum papyrus), Cercidas (*Meliambi*), Chariton (*Chaereas and Callirhoe*),

Cratinus (*Diomysalexandros*), Demosthenes (the author best represented of all, with two MSS. of the *De Corona*, one containing the *Olynthiacs*, *Philippics* and *De Pace*, one of the *De Pace* by itself — so far as we know —, one of the *De Falsa Legatione*, three of the *In Timocratem*, two of the *Contra Boeotum*, one of the first speech *In Aristogeitonem*, one of the *Hoplusia*, and one of an anonymous life of the orator), Ephorus (if the *Hellenica Oxyrhynchia*, one of the most important of the whole collection, may be assigned to him), Euripides (*Archelaus*, *Electra* and *Hyppsipyle*), Hellanicus (*Atlantis*), Heraclides Lembus, Herodotus (4 MSS.), Hesiod (*Scutum* and *Hoiai*), Hippocrates (*Epidemia*), Isaeus (perhaps), Isocrates (*Panegyricus*), Menander (*Colax* and a collection of arguments), Pancrates (*Hadrian and Antinous*), Pindar (one of the *Epinicia*, one of *Dithyrambs* and one or two of *Paeans*), Plato (*Euthydemus* and *Lysis*, two of the *Gorgias*, one of the *Laches*, two of the *Phaedo*, one of the *Phaedrus*, one of the *Politicus*, two of the *Republic*, one of the *Symposium*), Sappho (2), Satyrus' *Life of Euripides*, Sophocles (*Antigone*, *Trachiniae*, *Eurypylos*, and the satyric drama *Ichneutae*), Theocritus, Thucydides (5 MSS. and a commentary), and Xenophon (*Anabasis* and *Hellenica*). The works of which the author has not been identified include one of biography, nine comedies, three hexameter poems, six which appear to be history, three books of lyrics, a mime, four works of oratory, three of philosophy, a satyric drama and a tragedy.

Out of this total of 111 manuscripts, 59 are of works previously unknown, besides one so recently discovered as Bacchylides, and 51 of those that have long been with us, and it will be observed that most of the great names are represented, though never to the full extent of their now extant works. Demosthenes and Plato are there in some force, Pindar, Sophocles, Euripides, Thucydides and Herodotus are substantially represented, and the lost authors include poets so famous as Sappho, Alcaeus and Menander. Imperfect as the collection is as the embodiment of Greek literature as a whole, it is sufficient to show that the Oxyrhynchian Greek of the period of the Antonines was in a position to be fairly acquainted with his national culture. Aeschylus (no doubt too difficult to be ever popular) and Aristophanes (perhaps too local in his humour) are the most important names missing from the list, while Aristotle cannot be said to be seriously represented. It is also perhaps surprising that Hyperides, elsewhere so well preserved in Egypt, makes no appearance here.

It should be added that the end of the century perhaps sees the first appearance of Biblical and Christian literature. A fragment of the book of Genesis in the Septuagint version, and the famous first fragment of the Sayings of Jesus, which made so great a sensation at its first publication in 1897, are assigned to the second or third century. The Genesis in particular has a very early look, and both are at any rate as old as several of the papyri enumerated in the list that has just been given. Both, it should be noticed, are in codex form, which is characteristic of most of the early Christian literature, at a time when the codex was not the fashionable *format* for books, but was characteristic of cheap and perhaps private copies.

In the third century, though the total number of fragments increases, the record of classical Greek literature at Oxyrhynchus begins to decline. It is interesting to compare the list of authors with that for the second century. It comprises Aeschines (*De Falsa Legatione* and *In Ctesiphontem*), Antiphanes (*Ἀντιφάνης*), Antiphon Sophistes (two MSS.), Apollonius Rhodius (3), some scholia on the *Acharnians* of Aristophanes, Aristoxenus (one MS. certainly and perhaps two), Callimachus (*Iambi*), Choerilus,

Demosthenes (three of the *De Corona*, two of the *In Aristocratem*, one of the *In Meidiam* and one of the *In Timocratem*), Euclid, Euripides (*Andromache*, *Hecuba*, *Medea* and *Phoenissae*), Herodotus (2), Hesiod (one of the *Theogonia* and two of the *Catalogues*), a speech for Lycophron which may be by Hyperides, Julius Africanus (*Ksotol*), Isocrates (*Contra Sophistas*), Lysias (*Contra Hippothersem* and at least three other speeches), Menander (*Colax*, *Μισούμενος*, and perhaps another), Philo, perhaps one MS. of Pindar, Plato (*Laws*, *Phaedrus*, *Protagoras*, and two of the *Republic*), Sappho (three certain and one doubtful), Sophocles (*Electra*), Theophrastus (*Characters*), Thucydides (5), Xenophon (*Anabasis* and three of the *Cyropaedia*). The works of unknown authorship include an anthology, two works of astrology (one prose and one verse), five comedies, six hexameter poems, apparently epics, one book of epigrams, seven which appear to be histories, one work of literary criticism, two volumes of lyrics, one work of magic (in verse), one of medicine, four unidentified orations, one panegyric poem, five works of philosophy, one of rhetoric, four which appear to be romances, and two tragedies. The proportion of known works to unknown in this century works out at 40 to 63, but of those which are unknown a much smaller proportion can be assigned to their authors than was the case in the second century.

Besides these remains of classical Greek literature, there are three Latin works (one copy of Livy, book I, one a previously unknown Epitome of Livy, and a paraphrase of some lines of Virgil), and fifteen works of Biblical or Christian literature. The latter include two MSS. of Genesis, two of Exodus, one of Tobit, one of St. Matthew, three of St. John, one of St. Paul's Epistle to the Romans, one of the Epistle of St. James, one of the Apocalypse, one of the *Sayings of Jesus*, one apocryphal Gospel, and one of Hermas.

As compared with the second century, the number of identifiable authors is less, but the same names are conspicuous: Demosthenes, Plato, Thucydides, Euripides, Apollonius Rhodius, with Sappho and Menander noticeable among the lost writers of greater note. Aeschines, Hesiod, Herodotus and Xenophon are fairly represented, much as before. The main features to notice are the increase in the unidentifiable authors, some of whom may be suspected to be of minor, and perhaps only of local, importance, and the marked increase in Christian literature. Although Christianity was still an unauthorized religion, and though this century includes the persecutions of Decius and Diocletian, it is evident that it had adherents at Oxyrhynchus, who possessed some at least of the sacred books of their faith.

With the fourth century we find a great change. Of the 51 manuscripts represented among our rubbish-heaps, only twelve contain works of Greek classical literature. Three are Latin, and as many as 36 are Christian (including under that heading the Septuagint Old Testament). The classical authors who survive in this débacle are Achilles Tatius (the romance of *Clitophon and Leucippe*), Callimachus (*Aetia* and *Iambi*), Demosthenes (*De Pace*), an epitome of Herodotus, Hesiod (*Scutum*), Isocrates (*Ad Demonicum*, and a roll containing the *Panegyricus* and *De Pace*), Menander (*Epitrepontes*), Sophocles (*Ajax*), and three MSS. of Thucydides. Of these only three, the Callimachus and Menander, are of works that have not come down to us intact, and the unidentified works, which figure so largely in the second and third centuries, cease altogether. The popularity of Thucydides remains marked, Demosthenes, Isocrates, and Sophocles are represented, but Plato and Euripides have disappeared altogether.

The Latin works are the *Aeneid*, Sallust's *Catiline*, and an unknown philosophical treatise. The interest in Latin literature, therefore, remains practically negligible.

The Christian literature ranges over the canonical books of both Testaments, but also includes several uncanonical works, and some specimens of the early Christian writers. The Old Testament is represented by one Septuagint and one Old Latin copy of Genesis, two manuscripts of Leviticus, one of Joshua, and four of the Psalms; the New Testament by three manuscripts of St. John's Gospel, one of the Acts, one each of Romans, 1st Corinthians, Philippians, 1st and 2nd Thessalonians, two of Hebrews, one each of the Epistle of St. James, the First Epistle of St. Peter, and the First Epistle of St. John, and two of the Apocalypse. The uncanonical literature consists of three Gospels (one of a Gnostic character), the Apocalypse of Baruch, 6th Ezra, the Acts of Peter and the Acts of John. The early Christian writers include the *Didache*, the *Apology* of Aristides, and three copies of the *Shepherd* of Hermas. This list is enough to show that Christianity was widely spread in Oxyrhynchus in the fourth century, and that its literature was really studied.

In the fifth century the proportion of classical literature is higher. Out of 48 manuscripts of which fragments have come to light, 22 contain Greek classical literature, six Latin and 20 Christian literature. The most noteworthy feature in the survival of the Greek classics is the sudden emergence of Aristophanes, who has hitherto hardly been represented in our lists. One group of fragments from a papyrus codex, or (as the editors consider more probable) separate codices, includes the *Knights*, *Clouds*, *Frogs*, *Peace* and *Wasps*, while the *Plutus* appears separately, and there are two fragments which are doubtfully assigned to lost works of the same poet. In addition we have Callimachus (*Hekale*), Demosthenes (*De Falsa Legatione*), Euripides (*Hecuba*, *Orestes*, a MS. containing both the *Orestes* and the *Medea*), Isocrates (*Ad Demonicum* and *In Nicoclem*), Menander (*Misoumenos*), Sophocles (two MSS. of the *Oedipus Tyrannus*), and Theocritus; while the unidentified works include a life of Alcibiades, two comedies and a tragedy. In all we have fourteen known works of Greek literature in as many manuscripts and eight lost works.

Of Latin literature there is the *Catiline* of Sallust, two manuscripts of Cicero (one containing the *Second Verrine* and the *Pro Caelio*, the other the *Second Verrine* again, with the *De Imperio Cn. Pompei*), two of the *Aeneid*, and a Greek paraphrase of the same.

The Christian literature is distributed very differently from that of the fourth century. Of the Old Testament there is only a manuscript of Judges, while from the New Testament there are no less than four copies of St. Matthew, one of St. Mark, one of Romans, two of Galatians, one of the Epistle of St. James, and one of the Apocalypse. Apocryphal literature is represented by the *Acts of Paul and Thecla*, and three other MSS. of unidentified Acts. None of the known Christian writers outside the Bible appears, but there are fragments of five MSS. of unidentified theology.

For the sixth century our evidence is so slight as to be quite unrepresentative. We have one MS. of Pindar (*Olympians*) and one of Thucydides, with an unknown work on geography; one of the *Second Verrine* and a unknown Latin epic poem; Amos, Tobit, and Ecclesiasticus from the Old Testament, St. John's Gospel and Romans from the New; and a Biblical commentary and an unidentified theological treatise. The whole list is closed by a fragment of St. Matthew which is assigned to the seventh century.

This closes the evidence at present available as to the literary culture of Graeco-Roman Oxyrhynchus. The evidence cannot be pressed too far, since it is, from the nature of things, imperfect; but certain broad conclusions can legitimately be drawn. The first characteristic which stands out prominently is the marked difference between the second and third centuries on the one hand, and the fourth and fifth centuries on the other; that is, between the period before, and the period after, the recognition of Christianity. Before the conversion of Constantine, Christianity, if it existed, existed unostentatiously, and its literature was not current. If any of its books were in circulation, they were kept hidden; and many may have perished in the times of active persecution. On the other hand, Greek classical literature was current to a quite considerable extent. We can take the fragments which have been recovered from the papyri written during the first three centuries of our era together, as a fair representation of the library of an Oxyrhynchian Greek at any point during this period. Let us see the impression which it makes.

In the first place it is clear that our Oxyrhynchian Greek possessed many works which have not come down to us. Out of 258 manuscripts represented in our lists, 108 belong to works which have been extant at least since the Renaissance, while 150 are of works that were wholly lost, except for citations in other authors, until Egypt came to our help. And of these 150, 76 cannot be referred to any identifiable author. The lost authors who can be identified include some of the most famous names in Greek literature, such as Sappho, Alcaeus, Cratinus, Ephorus, Menander, and lost works of Hesiod, Pindar, Sophocles, Euripides and Callimachus; and there can be no doubt that many of the unidentified fragments belong of right to these or other almost equally well known names. Some of the seventeen unidentified comedies, most of which belong to the New Comedy, no doubt represent lost works of Menander. The five tragedies and the satyric drama most probably belong to Sophocles or Euripides, who were well known in Oxyrhynchus. The histories, orations, lyrics, and epics are less easy to assign to any particular author.

Looking at the list of identifiable authors as a whole, it is fair to say that Greek literature was well represented in this provincial town, far away from the main centre of culture at Alexandria. Those of the inhabitants who were interested in literature (not a large proportion of the population of any town in any country or in any century) had the means of being acquainted with nearly all the greatest authors of Greece. They had Homer as fully as we have, and Hesiod more fully. Of the lyric poets they had Sappho and Alcaeus, whom we, alas, have not; they had a good deal of Pindar that we have not, and Bacchylides, whom we now possess imperfectly, though substantially. There is also evidence of Aleman, and perhaps of Ibycus. The name that we miss with most surprise is Simonides, whom, as a better poet than Bacchylides and easier of comprehension than Pindar, we should have expected to be popular. There is also no trace of Stesichorus or Anacreon or the minor lyricists.

Of the tragedians, Aeschylus appears to have been quite unknown. His style did not lend itself to popularity, and we have much reason to be thankful that he was not altogether lost to us. What a difference it would have made to modern literature and to our conception of the Greek mind, if the *Oresteia* had never come down to us! But Sophocles and Euripides were adequately known. We have direct evidence of four of the known dramas of Sophocles, and it is hardly likely that the *Oedipus Coloneus* and *Philoctetes* were not also extant; while they had in addition at least the *Eurypylos*

and the *Ichneutae*. Euripides is not proportionately so well represented. We know only of the *Orestes*, *Phoenissae*, *Electra*, *Andromache*, *Hecuba* and *Medea*, with the *Archelaus* and *Hypsipyle* in addition.

In comedy, Aristophanes makes no appearance in the first three centuries, except in the form of some notes on the *Acharnians*, but emerges surprisingly in the fifth century with six of his known plays; and we have the argument of one play of Cratinus, which seems to imply that the play itself was extant. Menander, naturally enough, is the chief representative of the New Comedy. Oxyrhynchus confirms the evidence of Aphroditopolis as to the popularity of the *Ἐπιτρέποντες* and *Περικειρομένη*, and adds the *Κόλαξ* and *Μισούμενος*, and probably several others among the unidentified fragments; but none of Menander's rivals can be recognized by name.

In history, the predominance of Thucydides and Herodotus is most noteworthy, with Xenophon as a good third. We have evidence of as many as fifteen copies of Thucydides (besides a commentary), and six of Herodotus. Of Xenophon there are nine manuscripts, but five of these are not historical. It is somewhat remarkable that the lost historians do not make a better show. The *Ἀγιδες*, of whose popularity in Athens there is considerable evidence, do not appear at all. Their divergent version of Athenian history no doubt affected Aristotle, but we have no evidence that the *Ἀθηναίων Πολιτεία* was known at Oxyrhynchus. Ephorus has indeed been brought back to light (in all probability) in a substantial fragment, though unfortunately not from a very interesting part of his history; but his disciple Diodorus makes no appearance, and there are no signs of Theopompus, whom one would have expected to be popular. It is true that we have sixteen unidentified historical fragments, but few of them arouse much hope in us by any signs of importance. It is satisfactory to find the supremacy of Thucydides thus vindicated.

Among the orators Demosthenes stands out, as of right, in unchallenged predominance. We have no less than twenty-one manuscripts of his orations, the *De Corona* leading the way with seven, and the *De Falsa Legatione*, *De Pace*, *Philippics* and *Olynthiacs* being also represented. Of the less important orations, the *Timocrates* seems to have been rather curiously popular, since four copies of it have been found. The opposing speeches of Aeschines, *De Falsa Legatione* and *In Ctesiphontem*, were likewise extant, and Isocrates was fairly well known; but the other orators do not seem to have been popular. Hyperides, elsewhere in Egypt so well represented, makes one doubtful appearance, and there is one manuscript of Lysias and perhaps one of Isaeus; but Demosthenes stands out as clearly among the orators as Thucydides among the historians.

The same is true of Plato among the philosophers; and here it is a case of "Eclipse first and the rest nowhere". There is evidence of sixteen MSS., covering eleven of his Dialogues, the *Republic* predominating. The other philosophers make no show worth mentioning. Not only is there nothing of the earlier thinkers, Empedocles, Democritus, Heraclitus and the rest, nor of the later Stoics and Epicureans, but Aristotle himself is represented only by the *Προτεπτικός*. It is evident that Plato subsisted as literature rather than as philosophy, and that the citizens of Oxyrhynchus had no taste for abstract thought couched in less alluring language.

Finally, if we mention the Alexandrian poets, Theocritus and Callimachus, we shall have completed the list of the authors who appear to have had much vogue in Oxyrhynchus up to the critical moment of the conversion of Constantine.

The list makes a good showing on the whole. It is true that many works which we possess make no appearance in these rubbish-heaps, and in particular that the number of the plays of the great tragedians which we can be certain were read in Oxyrhynchus is small. Yet a community which has Homer, Plato, Thucydides, Demosthenes and Euripides as its favourite authors, with substantial representation of Hesiod, Sappho, Pindar, Herodotus, Sophocles and Menander, cannot be said to lack a good acquaintance with Greek literature. We would give a good deal that has come down to us, to know as much as they knew of Sappho and Menander.

How far Christian literature was current before A. D. 325 it is impossible to say. That Christianity was tolerated in Egypt, with occasional intervals of persecution, is evident from the mere existence of such authors as Origen and Clement of Alexandria, and the currency of a specially Egyptian form of the text of the New Testament. But as a general rule its literature must have circulated in cheap and private copies, usually, as it would seem, in the form of small papyrus codices; and these were more exposed to risks of destruction than manuscripts of classical literature. What is certain is that the recognition of Christianity brought about a very marked change. It is not merely that the evidences of Christian books jump at once into prominence and even into predominance; the notable fact is that non-Christian literature undergoes an abrupt decline. Whereas in the third century we have 103 manuscripts of classical Greek literature, from the fourth we have only twelve, and from the fifth twenty-two (Homer being in all cases left out of account). Thucydides, Demosthenes, Euripides, Isocrates, Sophocles, Callimachus and Menander hold their ground, though with reduced figures, but the rest, including even Plato, drop out of sight. The tone of society must have completely altered, and the taste for classical literature must have been almost submerged. It was an earnest of what was to come. From the middle of the fourth century onwards, the hold of the Greek classics on existence became precarious. They continued to exist and to be copied, no doubt, in the great centres, such as Constantinople, Antioch and Alexandria; but it is probably fair to conclude that they became the literature of the scholar rather than of the general public. Their decadence appears even in the texts that survive. Some of the later Homeric papyri from Egypt have texts of almost incredible badness. It is difficult to understand how they can have given any pleasure, or even have been intelligible, to their owners. The only parallel to them is the still more amazing badness of the original Greek verses produced by such a local luminary as Dioscorus of Aphroditon, the sweepings of whose study are among the waifs of time that have come down to us, but whose grammar and scansion pass man's understanding.

These dry statistics and lists of names are the evidence from which we can form an idea of the nature and extent of the culture of Graeco-Roman Egypt; and they also throw an interesting light on the descent of Greek literature to us. On the one hand, I think they show that it is to the great towns that we owe the larger part of our heritage, which is nothing less, in fact, than the foundation of our modern culture. So long as Alexandria stood, there is no reason to doubt that all Greek literature that much mattered was preserved there; but it was wiped out by the Arab conquest, and if we had depended on Alexandria alone, we should have been poor indeed. In the smaller provincial towns of Egypt it seems clear that classical Greek literature was almost killed by Christianity; and there is no reason to suppose that the case was different in other provinces, such as Syria or Asia, where Christianity took an equally

firm hold. It is difficult to think of any town except Constantinople where literary traditions would have been strong enough to hold their own; and I suspect it is to Constantinople that nearly all our gratitude is due. If Constantinople had fallen in the first waves of Mohammedan conquest, our acquaintance with Greek literature might have been limited to Homer, a few plays of Sophocles and Euripides, a few speeches of Demosthenes, possibly Thucydides, and such relics as have been recovered of recent years from the sands of Egypt. The work of our Society would indeed have been even more precious than it has been; but the general impoverishment of humanity that would have been involved is incalculable.

On the other hand, the discoveries that have been made suggest possibilities of a much more pleasing nature. We know that as late as the end of the third century (and in certain instances, such as Menander, much later) very much Greek literature existed which is now lost to us. We know also that complete papyrus rolls are seldom discovered except either in tombs or in houses. If then there is any further opportunity of excavating Graeco-Roman cemeteries or houses spared by damp and white ants, it seems to me that this should be the direction of our search. It is true that much of the search would probably be fruitless. Only a small minority of the Greek inhabitants of an Egyptian town probably possessed libraries of literature, and not many even of these would have had books buried with them. But the discovery of one grave which contained intact literary rolls would be worth a season's labour; if luck was on our side, and the rolls contained lost works, it would be worth the cost of several seasons. How gladly would we see the admirable skill and patience which Messrs GRENFELL and HUNT have brought to the identification, restoration, and elucidation of the fragments which they have discovered, devoted to the editing of an intact new classic! Think what it would mean! The graves and houses of Egypt have given us back complete works or substantial fragments of Hyperides, Bacchylides, Herodas, Aristotle, and large but tantalizing portions of Menander; to say nothing of Timotheus, whom we could have spared. But what if the spade of some fortunate explorer should open the grave of a Greek who had taken to his last rest a complete roll of Sappho, a play or two of Menander, or of Sophocles or of Euripides (and we have seen that all these were well represented at Oxyrhynchus up to the end of the third century), some Simonides or some more Pindar, or even that tragedy of Agathon, in celebration of which the poet's friends held that divine afterdinner conversation through the hours of a memorable night, until Socrates had seen all but Agathon and Aristophanes under the table! May we live to see that day! Or may we hope that the lost classics, like the Ideas of Plato, are laid up for us in Heaven?

HELLENIC CULTURE IN EGYPT¹

By H. IDRIS BELL, M. A.

In a lecture read before this Society last year² I pleaded for a wider recognition of the value of Greek papyri to the student of ancient history, and illustrated in general terms certain of the lessons which they have to teach and certain subjects on which they throw light. In the present lecture I propose to sketch in rather more detail, though of necessity very inadequately, the evidence which they afford concerning the history of Hellenic culture in Egypt.

It is hardly necessary to emphasize their value for our knowledge of the internal history of Egypt. It is obvious that documents of this description, so various in kind and illustrating almost every side of human life, must contain evidence of rare abundance and minuteness for the administrative organization, the financial system, the legal practice, the economic development, the social life of Egypt for over a thousand years. And if they did no more than this it would yet be true that the student who desires really to understand the history and culture of the Hellenistic and Roman world could learn much from what they have to tell. For though Egypt, by its peculiar geographical position, was a country unusually self-contained, though conditions there were in many respects exceptional, yet on the other hand it was, from many points of view, of very great significance for the life and thought of that new world which the conquests of Alexander and the subsequent spread of the Roman Empire had created. Under the first three Ptolemies Egypt was, on the whole, the most powerful of the kingdoms which had been formed out of the fragments of Alexander's Empire; and though her power declined under the subsequent kings she continued to be an important factor in the state system of the Eastern Mediterranean; while even in the first century B. C. she enjoyed the distinction of being the only considerable state in the Nearer East to have escaped absorption by Rome. That distinction ceased with the death of Cleopatra, but Egypt's agricultural wealth, upon which the life of Italy largely depended, made her of immense importance to the Empire; so important that Augustus, followed in this by his successors, forbade any Roman of senatorial rank to enter the province without special permission. Vespasian knew well what he was doing when he made the conquest of Egypt the essential preliminary to his bid for Empire, just as five centuries later He-

¹ This is in the main a lecture given for the Egypt Exploration Society on March 17, 1921, and (with certain modifications) at University College, London, and at a meeting of the Hellenic Society in the same year. I had hoped before publishing it to revise and expand it, with a view to making it a less inadequate treatment of its subject, but having been asked, at somewhat short notice, for an article for the present anniversary number, I decided to let it appear as it stands. The latter part of it may profitably be supplemented by L. WENGER's interesting lecture *Volk und Staat in Ägypten am Ausgang der Römerherrschaft* (München, 1922), received since it went to press. WENGER refers to an article by W. SCHUBART, *Hellenen in Ägypten*, "im Organ der deutsch-griechischen Gesellschaft Hellas 1921, Nr. 8, S. 4 ff.", which probably covers much the same ground as the present article, but I have not up to the present been able to see it.

² See *J. E. A.*, VI (1920), 234-246.

raclius, when he had decided on his revolt against Phocas, despatched his lieutenant Nicetas to secure Alexandria with its granaries. Nor was the political importance of Egypt confined to the economic sphere; for it seems certain that the highly organized kingdom of the Ptolemies, inheriting a long tradition of bureaucratic administration, served as a model for the civil service of Imperial Rome.

But it was not only in a political sense that Egypt counted for much in Hellenistic and Roman history. Her capital, Alexandria, with its library and museum, was one of the chief intellectual centres of the world. The Alexandrian literary circle of the third century B. C. was the most brilliant of the post-classical schools; Alexandrian science, Alexandrian mathematics and mechanics, Alexandrian scholarship and literary criticism, were epoch-making in the development of knowledge. Moreover, just as in a geographical sense, standing as she did at the meeting place of several trade routes¹, so also in the world of the mind Alexandria was a great clearing-house, where various currents of thought and feeling met and mingled. It was at Alexandria that the Septuagint version of the Old Testament was made; at Alexandria that Philo worked out his doctrine of the Logos, so important for the development of Christian theology; and the great names of Clement, Origen and Athanasius are sufficient proof of her eminence in intellectual matters during Christian times, while that of Hypatia reminds us that pagan philosophy also continued to flourish in her schools. In the whole sphere of religion not only Alexandria but Egypt as a whole played a decisive part. It was from Egypt that the worship of Isis and Sarapis, one of the most influential cults of the later days of paganism, spread through the civilized world; in Egypt that Christian monasticism, of such overwhelming significance for the history of mediaeval Europe, took its rise. And one of the leading figures in later Greek literature, noteworthy not only for his intrinsic merits but for his influence on the technique of Greek verse, the poet Nonnus, was a native of the Egyptian city of Panopolis. I repeat that the student of ancient culture cannot afford to neglect Egypt or the science of papyrology which illuminates so many phases of the life of that hinterland on which Alexandria, cherish as she might her Hellenic traditions, ultimately depended.

But it is not with the administration or even the social life of Egypt as such that I wish to deal in this lecture; it is rather with the history of Hellenic culture in this very un-Hellenic environment, as it is illustrated by the papyrus texts; with the development and gradual transformation of that culture through successive generations, from the Greeks we meet in the earliest texts, Greeks who may, chronologically, have served under Alexander or heard the eloquence of Demosthenes and Hyperides, to the last Greek notaries, the *Γραῖτοι νοτάριοι*, who wrote the Greek despatches of the Arab Governor, Kurrah b. Sharik, and watched, probably with uncomprehending eyes, the last gleams of Hellenism fade out before the rising star of Islam.

The earliest dated Greek papyrus yet discovered was written in the year 311—10 B. C. This document² brings us into a purely Greek circle. It is the contract of marriage between a certain Heraclides, whose origin is not stated, and Demetria, daughter of Leptines of Cos. The marriage law is purely Greek, not in any way in-

¹ On the economic importance of Alexandria and the economic consequences of Alexander's policy see the masterly article by Wilcken, *Alexander der Große und die hellenistische Wirtschaft*, in *Schmollers Jahrbuch*, XLV, 349—420.

² P. Eleph. 1 = MÜLLER, *Chrest.* 283, P. M. MEYER, *Jur. Pap.* 18.

fluenced (as are, in varying degrees, the later marriage contracts) by the very different Egyptian law; the witnesses, like the principals, are all Greek, one from Gela, three from Temnos, one from Cyrene, one from Cos; and the seals, alike of this and of other early papyri, show the impression of Greek gems, sometimes of a fine type. But on the other hand the contract was found, and may well have been written, at Elephantine, on the southern frontier of Egypt, and there are significant clauses which show that the future residence of the parties was uncertain; they had at present no settled home.

The document has several points of significance. The Greeks we meet here seem to be representative of the majority of the settlers. Mercenary soldiers, merchants, and some of higher class who filled the superior posts in the new bureaucracy—these were the commonest types, and they came largely from the smaller islands, from Asia Minor, from outlying colonies or the wilder parts of Greece, like Arcadia, rather than from such centres of Greek culture as Athens, Miletus or Syracuse¹; while mercenaries of non-Greek race, Persians, Jews, Lydians, Thracians and the like, served in the armies of the Ptolemies and afterwards settled as cleruchs in Egypt².

Again, this contract was not written in a Greek colony. Greek cities were few in Egypt: Alexandria, the capital, the old settlement at Naukratis in the Delta, and Ptolemais, the new foundation of Ptolemy Soter in the Thebaid, were all; and from none of these, if we except the Alexandrian laws in the famous Halle papyrus³, have we papyrus documents, at least at this period. The Greeks we meet were living, not like the colonists of old, in a *πόλις*, modelled on the mother-city, but scattered thinly among an alien population.

Thus we have the problem—as interesting a problem as can be imagined—set before us: given a minority of Greek settlers with their Greek tongue and Greek culture on the one side, and, on the other, the mass of the native population, with a language and culture and a highly organized religious system of their own, going back to an antiquity long before the name of Hellas had been heard; what was to be the fate of Hellenism in this environment?

It is a very similar picture we find when we turn to the somewhat later papyri from the Fayum as represented by the archives of Cleon, the Master of the Works⁴, and Zeno, the agent of the Finance Minister, Apollonius⁵. Here too the names are for

¹ For the various nationalities represented in the papyri see *Studi d. Scuola Pop.* (Milano), III, 3—85. ROSTOVZKEFF, *Large Estate* (see below), p. 130 f., points out how very narrow were the interests of many of these settlers: "There is not one word [in the correspondence of Zeno] on politics or on anything except purely material interests. . . This means that they all came to Egypt for one and only one purpose,—to enrich themselves." Yet that not a few of the settlers did retain their literary tastes is shown by the many literary fragments found on various sites.

² There is even an example of a Roman serving in the Ptolemaic army in a recently acquired papyrus of the British Museum, dated B. C. 252—1.

³ P. HALLE 1 (*Dikaionmata*, Berlin, 1913).

⁴ Edited in the three volumes of the Petrie Papyri.

⁵ On this wonderful archive and its importance for the economic and cultural history of Early Ptolemaic Egypt see now M. ROSTOVZKEFF, *A Large Estate in Egypt in the third Century B. C.* (*Univ. of Wisconsin Studies*, No. 6, 1922). This archive, having been discovered by natives and sold by them, more *and* in several lots to various dealers and others, has been much dispersed. Many papyri from it are now at Florence and have been published (or the bulk of them) by the *Società Italiana per la ricerca dei Papiri* in vols. IV—VI of its *Papiri greci e latini* (PSI). Still more are at Cairo, and a selection from them is being published by C. C. EDGAR in the *Ann. du Serv.*, vol. XVIII and following (P. Edgar). A considerable number, still unpublished, are in the British Museum (P. Lond.); and there are others elsewhere.

the most part Greek: Zeno, Cleon, Jason, Xenon, Hermolaus, Theodorus, Zoilus, Apollonius and the like. Here, too, we hear frequently of men from the city-states of Greece or Macedonia and from the surrounding non-Hellenic peoples. A strange mingling it is, recalling to mind that crowd at Alexandria which Theocritus has immortalized for us, the Syracusan women chattering in their broad Doric to the distraction of the bystander of a different race. Many, perhaps most, of the Greeks we meet in these texts of the mid-third century B. C. were not born in Egypt, but had come thither from homes in Greece or Asia Minor to seek their fortunes, and doubtless many of them kept in touch with old friends in the city-states. We know that Zeno, the owner of the wonderful archive recently discovered at Gerza in the Fayum, maintained communications with distant Caunus and Calynda; and an unpublished letter in the British Museum, which seems to bring a breath of sea air into the levels of the Fayum, shows us his father Agreophon on a journey home from a visit to his son. The writer, whom we may conjecture to be writing from Alexandria, says:—

"Know that your father and Acrisius have arrived home safely; for some people who have just come from Rhodes announce that the ship of Timocrates was at Rhodes already, having arrived from Caunus¹."

So too, a correspondent of Zeno's, writing to ask him for certain drugs, adds:—"If I recover and can go to Byzantium, I will bring you in return excellent dried fish²."

The settlers, too, maintained their Hellenic traditions. A small group of the Zeno letters is concerned with the training of a boy who is to compete in a gymnastic contest and whose studies, Zeno fears, may suffer in consequence³; and gymnasia, as inseparable concomitants of Hellenic life as cricket or football of English, were founded not only in the Greek cities, not only, indeed, in the nome capitals, but even in villages, wherever a sufficient number of Greeks had settled⁴. These settlers read their own literature, Homer, Euripides, the New Comedy, Plato; the earliest Greek papyrus yet found is that containing the *Persae* of Timotheus, and the earliest non-literary papyri, one of which I have referred to, were found in a jar wrapped in another piece of papyrus containing Greek drinking songs⁵. One text even gives us a glimpse into what we may perhaps call the workshop of an Alexandrian poet⁶. Zeno, while hunting or travelling in the Fayum, had been attacked by a wild boar and narrowly escaped death. He was saved only by his Indian hound, Tauron, who killed the boar but himself succumbed to injuries received in defending his master; and Zeno, in gratitude, commissioned an epitaph for him, doubtless from some poet of the court circle. And here, on this papyrus roll, duly addressed to Zeno, we have, in the poet's autograph, two alternative epitaphs, one in elegiacs, the other in iambics. They are not of the highest quality, but they are hardly the less interesting for that.

The Zeno letters are full of little touches illustrating Greek life; as when we hear in one of the purchase of garlands of pomegranate blossom⁷, or, in another, a painter named Theophilus offers to execute any pictures that are wanted⁸, or, in yet another⁹, two weavers, named Apollophanes and Demetrius, in language of somewhat exaggerated compliment, advertise their skill and tout for commissions, offering to make "cloaks,

¹ P. Lond. ined. Inv. No. 2092.

² PSI. 413.

³ PSI. 340, P. Edgar 11, P. Lond. ined. Inv. No. 2312. On this subject see ROSTOVITZEV, *Large Estate*, pp. 31—2, 172—4.

⁴ See WILCKES, *Archiv f. Pap.*, VI, 389, 392.

⁵ P. Berol. 13270; see W. SCHUBART, *Pap. Graecae Berol.*, Pl. 3.

⁶ P. Edgar 48.

⁷ PSI. 333.

⁸ PSI. 407.

⁹ PSI. 341.

tunics, girdles, mantles, sword-belts, bed-wraps (?), and, of women's garments, tunics open at the side, embroidered wraps (?), plain robes, purple-edged robes; and to give instruction, if desired."

The settlers continued to cultivate the arts they had practised at home, music, poetry, the dance. An unpublished Zeno papyrus in the British Museum contains a petition from a harpist (*αἰθαροπόδος*) who is preparing for a contest¹, and he concludes:—" [I ask that you will order to be given to me the monthly [maintenance], in order that, having taken due care of myself and found a trainer, I may enter [the contest which the] king is getting up." Another, if I am not much mistaken, mentions a theatre²; and in an inscription of Ptolemais reference is made to tragic, comic and epic poets and actors, a harpist, a dancer and other artists³. Clubs and associations, whether for worship, sports or social purposes, were formed, as in old days in Greece, so also in the new Egyptian home. Greek institutions, like that of the *ephebi*, were continued, the names and offices of Greek magistrates transferred to a new setting, the laws of Alexandria, as shown by the Halle papyrus, and doubtless those of Ptolemais also, were Greek; and lastly, the Greek used in these early Ptolemaic documents is comparatively pure. It is not, indeed, a Greek that the ordinary classical master would allow a modern schoolboy to write; the orthography is not often pedantically accurate, dialect forms and un-Attic neologisms betray the *κοινή* or international Greek of the time; sometimes we meet a letter written by an uneducated Greek, who commits actual blunders in grammar or spelling. It is in fact a living and developing tongue, not the already artificial Greek of the literary tradition; but it is the Greek of Greece, rarely showing any trace of barbarism.

That is one side of the picture; but there is another. The frequent occurrence of Egyptian names, the allusions to Egyptian conditions, remind us of that alien race who formed the majority of the population, on whose labours the economic prosperity of the country depended, with whom the Greek settlers were daily in contact. Nor were the Egyptians always hewers of wood and drawers of water. The policy of the first three Ptolemies was strongly Macedonian and Hellenic; they treated the natives frankly as a conquered race and kept a tight hold on the priesthood, the great rallying-point of national sentiment; but they could not ignore the Egyptian point of view, and we meet Egyptians in official positions, not indeed of the highest grades, but implying some power and responsibility⁴.

But it is especially in the sphere of religion and political organization that we are conscious of an unfamiliar atmosphere. We begin already to hear of Sarapis, that new deity who was soon to become in some sort the national god of Hellenized Egypt and then to spread his conquests through the civilized world. There has been much contro-

¹ P. Lond. ined. Inv. No. 2096; see ROSTOVITSEFF, *Large Estate*, p. 173 f.

² P. Lond. ined. Inv. No. 2309.

³ DITTENBERGER, *Or. Graec. Inscr. Sel.*, 51 (I, p. 78—81). On this subject see T. GRASSI, *Musica, Mimica e Danza*, in *Stud. Sc. Pap.*, III, 117—35.

⁴ A *σταθμοδότης* or billeting-officer named Petosiris (and therefore an Egyptian) occurs in P. Lond. Inv. No. 2099. Notice too the very independent tone of the Egyptian Petechon to Clearchus in P. Petrie II, 4, 4; see ROSTOVITSEFF, *Large Estate*, p. 60 f. [ROSTOVITSEFF is however mistaken in referring to Petechon the remark *διὰ τὴν ἐμαρτέραν κτλ.*; this occurs in Clearchus's letter, and is certainly not a quotation. ROSTOVITSEFF's conjectural reading *ἐμ[ε]* gives the sense but not the actual word, which is *ἐγώ*, as I found on looking at the original (now P. Lond. 513).] R.'s *γ[ένεσθαι]* is therefore to be emended to *ἵσθαι* or *γινώσκειν*.

versy as to the origin of this cult, so important for our estimate of the religious policy of the Ptolemies, but the most probable view is that which sees in Sarapis a combination of Osiris and Apis adapted to Hellenistic forms of worship and belief¹. He was in fact a coalition deity, destined to form the meeting point of Greek and Egyptian. A letter from Zeno's archive gives us a valuable illustration of the growth of this cult². It is from a certain Zoilus to Apollonius, the Finance Minister. As it is imperfect in places, I have had in the following translation to paraphrase the probable sense of one or two passages.

"It befell that as I was doing service to the god Sarapis on behalf of your health and favour with King Ptolemy, Sarapis commanded me several times in dreams to sail overseas to you and reveal to you this command: that a [temple?] and precinct be constructed for him in the Greek quarter near the harbour and a priest be installed and sacrifice offered for you and yours. And when I [besought him to?] release me from this [task?] he cast me into grievous sickness, so that my life was in danger, but when I prayed to him to heal me that I might undertake the service, and that I would perform this command, (I recovered). As soon as I was well, there arrived a man from Cnidus who attempted to build a Serapeum in this place, and had conveyed stones hither; but afterwards the god forbade him to build and he departed. And when I arrived at Alexandria and hesitated to approach you about this affair but would have petitioned you concerning a matter you had promised me, I again fell sick for four months, so that I was unable to come to you at once. It will be well, therefore, Apollonius, that you perform the god's bidding, that Sarapis, being propitious to you, may make you yet far greater and more illustrious in the King's eyes, giving you also health of body. Do not fear the cost, that it will be a great expense to you; for it will be altogether to your advantage and I will act as patron along with you in the whole matter."

But there were features in Egyptian religion far more alien to Greek ideas than the worship of Sarapis. Among the Zeno letters is one from the priests of Aphrodite to the Finance Minister which curiously illustrates this fact. Aphrodite, it must be pointed out, is here probably the Egyptian Hathor³, and there is a world of difference between Hathor, worshipped as a cow, and the very human figure of "Idalian Aphrodite." The priests ask for a hundred talents of myrrh for a burial, remarking;—"For you are aware that *Hesîs* is not brought up to the nome unless due preparation is made of all things proper to the burial," and they add, "You must know that *Hesîs* is Isis⁴."

What is this *Hesîs*? The correct answer is undoubtedly that given by SPIEGELBERG⁵, who identifies it with the Egyptian word *hsî't*, meaning the sacred cow of Hathor identified after death with Isis. One feels it was not a work of supererogation for the Egyptian priests to explain to the Greek Minister that this deceased cow was not really so many stones of indifferent beef, but the very Isis, Queen of Heaven.

¹ The latest treatment of the subject, with references to previous work, is that by K. SETHE, *Zur Herkunft des Sarapis*, in *Janus*, I (1921), pp. 207-13.

² PSI. IV, 435 = P. Edgar 7.

³ I cannot follow VITELLI (PSI. VI, p. x) and ROSTOVITZEFF (*Large Estate*, p. 37) in regarding Aphrodite as equivalent to Isis here. The words *γίνασσε δὲ ἵνα τῆς Ἐοῦς ἑλάν* certainly do not prove it; indeed, if SPIEGELBERG's explanation is correct, they indicate the opposite. Isis was no doubt identified with Aphrodite, but she ordinarily retained the name Isis, whereas Hathor was regularly represented by Aphrodite, as in the Greek names of the Hathor-nomes. Nor is there any need to bring in Arsinoë, as ROSTOVITZEFF does, *loc. cit.*

⁴ PSI. IV, 328.

⁵ *Orient. Literaturzeitung*, XXIII, 260.

Only less remote from Greek conceptions was the worship of the living Ptolemy. The official cult was indeed Greek, developed gradually from the worship of a king or queen after death, and not till the latter part of the third century B. C. did it become a matter of course that the reigning Ptolemy and his wife should be worshipped. But Greek though it was in its forms, a cult of this kind could hardly have grown up in classical times or except under the influence of Oriental absolutist ideas; and it would have shocked a Greek of the age of Pericles or Demosthenes to find a legal deed dated "in the reign of Ptolemy the Benefactor God, the son of Ptolemy and Cleopatra the Gods Manifest and Queen Cleopatra his wife¹." Side by side with this Greek cult, moreover, was the Egyptian cult of the Ptolemy as Pharaoh, and the first Greek scribe who copied a translation of a demotic papyrus must have felt the alien ring of such titles as those given to Philopator in a Greek document at Munich²: "He that restored the sacred rites and the laws established by the Most Great and Most Great and Most Great Hermes, Lord of the thirty-year periods, like Hephaestus the Great, King like Helios, Great King of the Upper and Lower regions, offspring of the Benefactor Gods whom Hephaestus glorified, to whom Helios gave the power, image of Zeus, son of Helios, Ptolemy who liveth for ever, the beloved of Isis."

And this brings us to the political organization of the kingdom. We learn from such texts as the Revenue Laws of Ptolemy Philadelphus that the tenants of the royal lands and the workers in the oil monopoly were alike limited in their personal liberty, forbidden to remove to another nome, not free to withhold their labour. The Greek settlers were, of course, accustomed to slave labour, on which Greek industry largely rested, but these Egyptian peasants and artisans were not slaves. They were at once free and unfree; tenants paying rent or artisans receiving wages, yet at every point subject to restrictions and constraint, tied to their homes, semi-serfs. And they were thus tied because they were merely part of the machinery of the state, and that state was but the expression of the king's will, the condition of his well-being. The Ptolemy, Macedonian in origin, with the tradition of Macedonian feudalism behind him, Greek by assimilation, trained in the literature and thought of Hellas, was yet by adoption Pharaoh, heir of centuries of absolutism, the beloved of the gods, himself a god, the living image of Rê, whose word was law and whose ordinance divine. And the Ptolemies, cultivate Hellenic culture as they might, did not forget this. It pleased them to see the Greek settlers form their associations and indulge in their ancestral pursuits, to let the Greek cities play at self-government, with their senates and assemblies, their Greek laws and their popular decrees; but it was in the last resort only play, and there was no question that if Hellenism or self-government clashed with the will of the Pharaoh it was they which must give way. It was in fact the rôle of the Ptolemies, in even greater degree than the other Hellenistic kings, to engraft the culture of Hellas and the quick and adaptable Greek intelligence on to the bureaucratic absolutism of the Orient³.

To say this is to answer *a priori* the question I propounded as to the fate of Hellenism in Egypt. The externals of Hellenism, the Greek tongue, Greek law, modified of course by Egyptian custom and local conditions, Greek institutions so far as they

¹ P. Lond. III, 879, p. 6 (B. C. 123).

² WILCKEN, *Chrest.* 109.

³ On this subject see the admirable article of M. ROSTOVITZKY, *The Foundations of Social and Economic Life in Egypt in Hellenistic Times*, in *J.E.A.*, VI (1920), 161-78.

could be adapted, some elements of Greek religion, Greek social life, even Greek education and the study of Greek art and literature — all these could be and were transferred to the new environment; but the spirit of Hellenism, that mental freedom, that fullness of humanity, that exquisite balance, that fearless, cloudless facing of concrete reality, which are the glory of Hellas, could not but wither in such an atmosphere.

We are already conscious of a change by the end of the third century B. C. A factor not without a bearing on this change was the alteration in the position of the *cleruchs* or military settlers. At first the *kleroi* or allotments were held on a contingent and precarious tenure, not heritable, not to be sold or mortgaged, resumed by the king on the holder's death; but by the end of the third century it was taken as a matter of course that the *cleruch* would be succeeded by his son, and gradually the right, first to sell (or "cede" as it was technically called) and afterwards to bequeath the *kleros* was established¹. We cannot follow all the steps in the development; but it seems clear that it was but a small further step when the Romans recognized the *catoecic* land, as it was called, as being in effect the property of its holders.

This development was, I say, not without influence on the de-Hellenization of the settlers; for while they were primarily soldiers, holding their land on a precarious tenure, they were less exposed to the influence of the Egyptian environment than when they had become regular landowners with a permanent stake in the country. They might look down on the Egyptians as an inferior race, but they had in practice to co-operate with them; and thus in a deed of B. C. 215–4² we find a Greek of Cyrene and an Egyptian as joint tenants of land leased by an Athenian settler. So too inter-marriage between the two races became more and more frequent. The process is seen even in the names we meet in the papyri; the Greeks began to give their children Egyptian names or to add Egyptian names to their Greek ones; so that, whereas in the third century a name is a clear indication of race, from the second century onwards this criterion is no longer valid³. On the other hand Egyptians assumed Greek names. Many Egyptians of course learned Greek; and the result is a degeneration in the Greek of the less literate papyri, the intrusion of barbarous forms or of spellings due to Egyptian pronunciation. The Greeks, on their side, did not, in some cases at least, disdain to learn Egyptian. In a letter of the second century B. C. a mother (?) writes to her son: — "I congratulate you and myself on the news that you are learning Egyptian, for now when you get to the city you will teach the children at the house of Phalou...és the physician, and will have a provision for your old age⁴." It is indeed significant that a knowledge of Egyptian should improve the prospects of a Greek schoolmaster in a nome-capital.

Egyptian customs, too, gained ground among the settlers. Thus, the marriage of brother and sister, common in Egypt but not less abhorrent to the Greeks than to ourselves, is found in the Roman period even among the well-to-do⁵. In religion the borrowing from Egyptian usage was wholesale. In the years 98 and 95 B. C. ex-ephebi

¹ For the history of the *cleruchies* see LESQUIER, *institutions Militaires de l'Égypte*, chaps. 2 and 6, and now also the same author's *Le papyrus 7 de Fribourg*, in *Rev. d. ét. gr.*, XXXII (1919), 359–75.

² P. Frankf. 2.

³ WILCKEN, *Grundzüge*, p. 23, *Chrest.* 51.

⁴ P. Lond. I, 43 (p. 48) = WITKOWSKI, *Ep. Priv. Graec.* 50, WILCKEN, *Chrest.* 136. See especially WILCKEN's remarks in his introduction.

⁵ Cf. the case of the strategus Apollonius in the second century (see WILCKEN, *Archiv f. Pap.*, VI, p. 426).

are found, in the Fayum, a nome where the Hellenic element was specially strong, dedicating shrines to "Suchus the great, great god¹;" and one of these inscriptions is cut on a stele of thoroughly Egyptian type. Suchus was the crocodile god, worshipped in the Fayum; and that associations of ephebi, an institution which stands in the very centre of Hellenic life, should be found making dedications to him, is a fact of immense significance.

This process of de-Hellenization, as I have ventured to call it, inevitable in any event, was hastened by the policy of the feeble rulers who followed the first three kings of the dynasty, a policy which took its rise from an event of great importance in Egyptian history.

Early in the reign of the weak debauchee Ptolemy IV Philopator, the young king of Syria, Antiochus III, resolved to reconquer Palestine. The danger was great; the Egyptian army had been grossly neglected and Antiochus was able and vigorous. Ptolemy was compelled to abandon the traditional policy of his house and to enrol a large number of Egyptians, arming and training them in the Macedonian manner. He met Antiochus, who had overrun Palestine, at Raphia, where 2134 years later the Egyptian Expeditionary Force was to fight its first battle on Turkish soil. As in the modern, so also in the ancient Battle of Raphia, it was the army of Egypt that won the day, but it was a Pyrrhic victory for Egyptian Hellenism and the Ptolemaic dynasty. Rendered confident by their share in the triumph and utilizing their new military knowledge, the Egyptians began to offer a bolder front to their Macedonian and Greek masters, and revolts soon became frequent. Philopator and his successors, despite some attempts at reaction, made more and more concessions to their Egyptian subjects, more and more tended to convert their rule into a national Egyptian monarchy. Egyptians who served in the army or police received, like the Greeks, their *kleroi*, and the size of their holdings increased, while those of the Greeks grew smaller. The Greek settlers had to the end larger *kleroi* than the Egyptians, but the difference between the two races was far less in the first than in the third century B. C.

Egyptians, moreover, began to rise to high office in the state. Already in the second century we hear of an Egyptian Paôs with the titles, "Kinsman and general of the Thebaid²," and a son, writing in the year 131—130 B. C. to his father in the Thebaid, where a revolt had broken out, bids him keep his spirits up, "for the news has come that Paôs is sailing up in Tybi with adequate forces to put down the insurgents at Hermonthis and treat them as rebels³." Things had indeed altered when a Ptolemy had to rely on an Egyptian general to suppress insurgents!

The power of the priesthood, kept severely in check by the early Ptolemies, grew steadily; the right of asylum was extended to temple after temple, and the priests became once more a formidable power in the state⁴.

These tendencies were accentuated by the concessions of Euergetes II in the second century⁵. These concessions to his Egyptian subjects were just and reasonable enough in themselves, though probably made, partly at least, to gain support in the civil wars

¹ WILCKEN, *Chrest.* 141, 142.

² STRACK, *Dyn. der Ptol.*, p. 257, no 109.

³ P. LOUVRE 10594 = WILCKEN, *Chrest.* 10. Another letter relating to the same revolt has recently been edited by GREENFELL, *Rev. d. ét. gr.*, XXXII (1919), 251—5.

⁴ See, for this right of asylum, G. LIEFÈVRE, *IEPA AEYAA du Fayoum*, in *Ann. du Service*, XIX, 37 ff.

⁵ See especially P. Teb. I, 5 = WILCKEN, *Chrest.* 65 and 260; cf. PREISIGKE, *Archiv f. Pap.*, V, 301—16.

which occupied so much of his reign; but they certainly helped to assimilate Greek and Egyptian and so to weaken still further the influence of Hellenism.

But by this time a new power had arisen in the Hellenistic world; Greek and Egyptian alike were living in the shadow of Rome and for the last century of its history the kingdom of the Ptolemies existed only on sufferance. An interesting sidelight is thrown on the position of affairs by a papyrus containing a letter from a high official to the local authorities in the Fayum with reference to the visit of a Roman Senator. He writes:—

"L. Memmius, a Roman senator of the highest rank and estimation is sailing up from the city to the Arsinoite nome to see the sights. Let him be magnificently entertained, and see to it that the guest chambers are prepared at the appointed places and the gifts specified below are offered to him at the landing stage, with the requisites for the equipment of the guest chamber and the tit-bits for Petesuchus and the crocodiles, and the requisites for viewing the labyrinth¹."

The effect of the Roman conquest was at first to strengthen the position of the Greeks and of Hellenism against Egyptian influences; for the Romans, true to the maxim "divide and rule" made it a principle to distinguish sharply between the various races in subject countries, and, recognizing the superiority of Hellenic culture, gave the Greeks a privileged position. The Roman citizen, of course, took precedence; he was now, in fact, what the Macedonian or Greek had been under the early Ptolemies. But the conquest deepened and made more definite the gulf between Greek and Egyptian. Greek continued to be, for most purposes, the official language, used even by the prefects in their decrees and correspondence with the local officials. The Greeks were exempt from that mark of subjection, the poll-tax; and though in principle only Roman citizens could serve in the legions, yet in practice Greeks, at first those only of the Greek cities, later even residents in the nome-capitals, were given the citizenship as a preliminary to enlistment, while from the first they were admitted freely to service in the auxiliary forces and fleet, receiving the citizenship on discharge². Thus the ability to enlist in the army, denied to the native Egyptians throughout the Roman period for the legions, and till the third century for the auxiliary corps³, was a short cut to full citizenship and a substantial privilege. The Hellenized inhabitants of the nome-capitals, usually of mixed race, were not indeed exempt from the poll-tax, but were assessed at a lower rate, which varied from nome to nome. At Oxyrhynchus the rate was twelve drachmae per head, and the privileged were known as *μικροπολῖται δωδεκάδραχμοι*, "twelve-drachma metropolitans." The native Egyptians, on the other hand, were treated frankly as a conquered race, paid the full poll-tax and could not enter the army. The power of the priesthood was severely curbed; the whole hierarchy was placed under strict control⁴, the right of asylum was drastically reduced and the number of priests exempt from poll-tax limited.

¹ P. Teh. I, 33 = WILKEN, *Chrest.* 3.

² LESQUIER, *L'Armée romaine d'Égypte*, pp. 203–26.

³ LESQUIER, *op. cit.*, p. 225.

⁴ The positions of High Priest and Idologos were, indeed, probably not combined, as formerly supposed, at least before the reign of Septimius Severus; see H. STUART JONES, *Fresh Light on Roman Bureaucracy*, pp. 22–9. How much under control the priesthood was may be seen, however, from the Gnomon papyrus (W. SCHUBART, *Der Gnomon des Idios Logos*, Berlin, 1919).

In another way, too, the cause of Hellenism was helped. The nome-capitals, though they were called cities, were not really cities in the Greek sense, for they had no self-government, no senate. They did not, on the Roman conquest, become either Greek *poleis* or Roman *municipia*, but in practice the tendency was to assimilate them more and more to the self-governing cities. Their magistrates were arranged in a regular hierarchy, and it became usual for a magistrate to give the list of offices he had held in the past, his *cursus honorum*, just as in the *municipia*¹; while the whole body of magistrates formed a *κοινόν* or corporation, which carried on correspondence with the state officials and undertook other duties as a corporate body, fulfilling many of the functions of a senate.

The result of all this was naturally to increase the self-respect of the capitals. We know so little of them during the Ptolemaic period that it is rash to make sweeping statements, but it seems probable that a sensible growth in municipal pride and self-consciousness followed the Roman conquest. The metropolitans tended to look down on the Egyptians of the villages as barbarians. The Alexandrians had always done so; and now we find the writer of a third-century letter found at Oxyrhynchus declaring:—"Perhaps, my brothers, you are thinking me a barbarian or an inhuman Egyptian; but I claim that this is not so²." The nome-capitals began to vie with one another in their public buildings and the convenience and elegance of their streets and municipal establishments. The name of Hellene became more valued; the Greeks scattered about the nomes seem at some time to have been formed into associations, probably modelled on those of the free cities and apparently possessing some political significance. Thus we hear in the Fayum of the "6475 Greek men of the Arsinoite nome³," and the Greeks of the Delta and the Thebais are found uniting with other bodies to erect an inscription in honour of a rhetorician⁴. The revival of Hellenism received an added impulse from the foundation in 130 of Antinoöpolis by the Philhellenic Emperor Hadrian; the Attic influence went so far in this case that the Antinoöites used the Attic months; it is true, equated with the Egyptian calendar.

At Alexandria the pride in Hellenic traditions led, on the one hand, to violent outbursts of anti-Semitism, and, on the other, to constant friction with the Roman government, which tended to favour the Jews, at least till the revolt of Judaea, and even after that event had at times to protect them from their Greek neighbours. To this friction we owe a curious class of literature which German scholars have called "Heidnische Märtyrerakten," "Heathen acts of the Martyrs." The name is apt; for these texts closely resemble the Christian *Acta Sanctorum*, to which, indeed, they may have served as models. They consist of reports, based no doubt on the official *Acta*, but worked up with a literary and propagandist purpose, of trials of prominent Alexandrians before the Emperor. Their object was to glorify the courage and in-

¹ For a discussion of the *cursus honorum* in Egypt, summing up the latest evidence, see P. Oxy. XII, pp. 28-30.

² P. Oxy. XIV, 1681. It is indeed possible that this man was an Alexandrian living in the *χώρα* as his letter may be addressed to Alexandria; see GREENFELD and HUNT, *ad loc.*

³ See PLAUTMANN, *Die ἐν Ἀρσινόῃ ἀνδρες Ἕλληνες 6475*, in *Archiv f. Pap.*, VI, 176-83. We do not know indeed at what time this body was formed. PLAUTMANN (p. 182) thinks it was under the early Ptolemies, but there is no evidence for this, and in any case the emergence of these "Greeks" in the Roman period seems to argue an increase of their importance.

⁴ DITTENBERGER, *Or. Graec. Inscr. Sel.* 709 (II, pp. 446-8).

dependence of spirit of these "martyrs," who, like their Christian successors, sometimes address Caesar in a tone of gratuitous insult¹.

The centre of Hellenic life, in the nome-capitals as in the Greek cities, was the gymnasium. To have been educated there was the hall-mark of social superiority, and those so educated, οἱ ἀπὸ γυμνασίου, as they were called, formed a special class, not only socially but politically. Athletics formed of course a leading feature in this education, and athletics were followed with the most intense interest. Much of the interest, indeed, was of a rather spurious kind; for professionalism was as rife then as now. The most extraordinary honours were showered on successful athletes. One of the officials who signs a diploma of membership in the chief athletic club of the Empire, now in the British Museum², is described as citizen of Sardis, Alexandria, Antinoopolis, Athens, Ephesus, Smyrna, Pergamum, Nicomedia, Miletus, Lacedaemon and Tralles. It is as if cities like London, Paris, Madrid, Vienna, Rome, were to vie with one another in offering their freedom to Jack Johnson or Georges Carpentier. There were, however, more substantial rewards than an honorary citizenship. The native city of a victorious athlete granted him and his children not only immunity from all burdens and liturgies but in addition a pension; and these pensions must sometimes have been a formidable addition to the municipal budget³. How very commercial was the attitude of at least some athletes, may be judged from a recently published papyrus letter⁴, the writer of which describes to his wife (?) his experiences at Alexandria during a visit to that city of an Emperor, perhaps Caracalla. Having been defeated in the pancratium, of which he had little experience, and evidently anxious to get a prize somehow, he conceived the bright idea of challenging his companions, who were as inexperienced as himself. He won, and thus secured the principal prize, his companions got a consolation prize, and all were well content with their day's work.

Athletics, however, were not the sole subject of instruction in the gymnasia; music and rhetoric, which really meant much what we mean by a humanistic education, were essential parts of it⁵. Classical Greek literature, Homer of course in the place of honour, was studied and read. A mother writing to her son remarks:—"I took care to send to ask (your teacher) about your health and learn what you are reading; he said that it was the sixth book⁶." She means, of the Iliad; but so much a matter of course was this that she does not think it necessary to mention the name.

Of the humanistic education in the gymnasia, the papyri tell us nothing; but we have many texts illustrating elementary education⁷, and we know that this, crude as it often is beside modern educational standards, was based on the classical tradition. That Greek literature was widely read we know from the number and variety of the literary papyri found on the site of a mere nome-capital like Oxyrhynchus⁸. Not only the works we possess but many we have lost were read in Roman Egypt, and not only

¹ See WILCKEN, *Zum alexandrinischen Antisemitismus*, in *Abh. Süchs. Ges. d. Wiss.*, XXVII (1909), 783—839; also H. NIDDERMAYER, *Über antike Protokoll-Literatur*, Diss. Göttingen, 1918.

² P. Lond. III, 1178 = WILCKEN, *Chrest.* 156. ³ See MÉAUTIS, *Hermoupolis-la-Grande*, pp. 199—203.

⁴ SCHUBART, *Ein Privatbrief aus Alexandria*, in *Anth. Ber. Kön. Kunsta.*, Berlin, XXXIX (1918), 141—53.

⁵ See WILCKEN, *Grundzüge*, p. 138. ⁶ P. Oxy. VI, 930 = WILCKEN, *Chrest.* 138.

⁷ A number of these are collected by E. ZIEBARTH, *Aus der Antiken Schule*, Bonn, MARCUS & WEBER, 1913 (*Kleine Texte*, 65).

⁸ On this subject see the very instructive article by Sir FREDERIC KENYON published in this number.

the more familiar Attic writers, but lyric poets, often difficult, like Ibycus, Aleman, Archilochus, Alcaeus, Sappho, Corinna, Pindar, Bacchylides. Music, dancing, rhapsodists' recitations were popular at festivals; an interesting papyrus preserves a proclamation, apparently delivered by a speaker impersonating the sun-god, inviting the public to celebrate the accession of Hadrian¹:—

"In chariot drawn by white horses, late-risen with Trajan, I come to you, O people, god Phoebus, not unknown to you, to proclaim the new king Hadrian, to whom be everything subject, by reason of his virtue and the fortune of his deified sire. With joy, therefore, let us kindle the altars to sacrifice, to laughter and revel giving up our hearts, and to the ointment of the gymnasium; all of which does the strategus's loyalty to our lord and kindness to the people bestow upon us."

Various fragments of farces and mimes bear witness to the popularity of the drama²; and though the literary quality of these compositions is nil, a generation which tolerates the modern London stage can hardly afford to throw stones at Oxyrhynchus or Arsinoe on that score.

Here, too, however, there was another side to the picture. The Roman government might on paper make clear-cut distinctions between Greek and Egyptian, but actually there was no such definite distinction. The process of intermingling and assimilation had gone on so long that it may be doubted whether, with the possible exception of Ptolemais and Naucratis (certainly not Alexandria), there was now a pure-blooded Greek in Egypt; and in most districts there were perhaps few pure-blooded Egyptians. External criteria—Hellenic culture, the possession of catœcic land, citizenship of a Greek city—were more certain, and on them the actual categories were based, but even these lines of division were shifting and uncertain, and the Hellenic culture was often only a veneer. One of the early citizens of Antinoopolis mentioned in a group of unpublished papyri in the British Museum is described as one of the "Greek men of the Arsinoite nome", but in an earlier document he calls himself a Persian of the Epigone.

The seeming brilliance of the municipal life in the nome-capitals rested on a very uncertain basis; for that fatal disease, the economic decay which proved the ruin of the Roman Empire, was already at work. Unlike the liturgies or compulsory services laid upon the unprivileged classes, the municipal magistracies were, in theory, voluntary; but already by the beginning of the second century the enormous charges they involved and the increasing economic difficulties made it hard to obtain candidates, and compulsion, at first virtual, afterwards avowed, had to be resorted to. A second century papyrus in the Rylands Library³ well illustrates the shifts and subterfuges to which a man might be driven in order to evade service; and the reality of the burden may be estimated from the fact that by the so-called *cessio bonorum*, the surrender of two-thirds of his property, a man nominated to office might escape the duty, and that this way of escape was at times actually resorted to. The municipal magistracies had in fact a fatal influence on the economic history of Egypt, and led at last to the ruin of the urban middle classes⁴.

¹ P. Giss. 3 = WILCKEN, *Chrest.* 491.

² See E. A. BARBER, *The later Greek Mime*, in J. U. POWELL and E. A. BARBER, *New Chapters in the History of Greek Literature*, pp. 120–3.

³ P. Ryl. II, 71.

⁴ A comprehensive treatment of the whole subject of liturgies and magistracies will be found in the volume by FR. OERTEL, *Die Liturgie*, Leipzig, 1917. A summary sketch of their effects on the economic (and eventually the political) history of Egypt in my article *The Byzantine Servile State in Egypt*, in *J. E. A.*, IV (1917), 86–106.

A further step in the history of Hellenism was taken in 202, when Septimius Severus gave the nome-capitals a senate or *βουλή*. This did not completely assimilate them to the free cities, but it was a considerable step in that direction; and in 212 Caracalla, by the famous *Constitutio Antonina*, immensely increased the number of Roman citizens. The actual words of the important clause can be quoted from a fragmentary Greek translation of the edict, preserved in a papyrus at Giessen¹:—

"I give to all [the non-Romans in] the world the Roman citizenship, preserving [every kind of constitution], except to the *dediticii*."

The *dediticii* were the unprivileged classes, paying the full poll-tax; in Egypt, therefore, the native Egyptians, not sharing in Hellenic culture.

These measures widened the gulf between the metropolitans and the rural peasantry and still further increased the civic pride of the nome-capitals. High-sounding titles began to be adopted by them. As early as 135 Hermopolis appears as "Hermopolis the great" but after 202 the title has grown to "Hermopolis the great, ancient and illustrious," and later became "Hermopolis the great, ancient, most illustrious and most venerable²." A sort of megalomania seemed in fact to descend upon the nome-capitals. Hermopolis, for example, in the course of the third century, undertook a grandiose scheme of building and city-planning, with wide thoroughfares, bordered with colonnades, traversing the city from side to side³. The idea was excellent in itself; but in the state of the city's finances it was suicidal. It was indeed a Danaan gift that Caesar had given the nome-capitals. The new senates, involving mutual financial responsibility on the part of all the members, were the last nail in the coffin of the well-to-do middle class. The nome-capitals might give themselves high-sounding titles, might advertise their Hellenic culture, as does the senate of Hermopolis in one document by a quotation from Euripides⁴, might stand stiffly by their rights and privileges, but these things could not check their steady drift to ruin, which accompanied and was doubtless accentuated by the economic crisis throughout the Empire, and a slump in the value of money without a parallel in history till the recent exploits of the rouble, the krone, and the mark. The end of the process was the ruin of the urban middle-class; and its ruin meant, ultimately, the ruin of Hellenism as an effective force in Egypt.

By this time, too, there had appeared another force which was to prove hostile to Greek culture, I mean Christianity. A small number of third-century papyri bear witness to its presence even in the provincial towns of Egypt. The persecution of Diocletian, which dispersed the Christians, probably helped to spread the new faith to the remoter districts, and with the conversion of Constantine the ultimate victory of Christianity was certain. Already the papyri of the mid-fourth century give the impression that Egypt was largely a Christian country⁵.

Christianity, though its theology owes so much to Greek philosophy, yet proved, at least in the form it had now assumed, inimical to Hellenism in two ways. Fixing their attention on the future life and the salvation of the soul, the Christian leaders

¹ P. Giss. 40, col. 1 = MITTREIS, *Chrest.* 377, P. M. MEYER, *Jur. Pap.* 1.

² G. MÉAUTIS, *Hermopolis-la-Grande*, pp. 31–2.

³ MÉAUTIS, *op. cit.* pp. 159–64.

⁴ C. P. Herm. 125, II + 124, R. (MÉAUTIS, p. 175), ll. 6–7: κατὰ γὰρ τὸν [ἀρ]χαῖον λόγον "εἰς ἑμμεν' εὖνον ἀνδρὸς ἱμβλέπειν γλυκὲν."

⁵ For the early history of Christianity in Egypt, as illustrated by the papyri, see the interesting article by G. MÉAUTIS, *L'introduction du christianisme en Égypte*, in *Rev. de Théol. et de Phil.*, 1921, 169–85.

had little sympathy with the cult of bodily fitness which was so characteristic of Hellenism. The gymnasium and all that it stood for was abhorrent to them; and after the fourth century we hear no more of the gymnasia. It was horse-racing, not the sports of the palaestra, which furnished the chief amusement of Byzantine times. Asceticism scorned personal cleanliness, indeed almost exalted filthiness into a good, while its spiritual extravagances accorded ill with the balance and sanity of the Greek spirit. Attention was centred now rather on theology than on classical literature. It is true that the latter was still studied. The Byzantines had even access to many works now lost. It is to papyri of the Byzantine age that we owe the fragments of the *Demes* of Eupolis and the codex of Menander; but it is nevertheless certain that the range of reading in this period was much narrower than before. It is a well-known fact that the chances of finding, in a literary papyrus, a work previously unknown diminish with the age of the papyrus. Even as late as the second century the chances, if we exclude Homer, are probably about equal; but in papyri of the Byzantine age they are decidedly against a new discovery¹.

Indirectly, too, Christianity operated against the survival of Hellenic culture. By a curious contrast with the West, where the Papacy and the Church of which it was the head played the principal part in evolving a cultural and even, in some respects, a political unity among the warring tribes, races and petty states which had taken the place of the Empire, Christianity in the East acted as a solvent on the unity of the Graeco-Roman world. In the West the universal use of Latin as the ecclesiastical language no doubt helped to counteract centrifugal tendencies; but in the East the national churches early began to use the local idioms, and these languages may be said to have revived and been adapted to literary uses in proportion as Christianity spread. In Egypt, Coptic, in Syria and Mesopotamia, Syriac, in Armenia, Armenian emerged into self-consciousness and became the vehicle for expressing the religious experience of the mass of the people. Coptic literature is dull enough in all conscience, and betrays an essential puerility in the Egyptian mind, but it is none the less of real interest as revealing the reaction of that mind to Christianity.

Even the heresies which played so large a part in the Byzantine age cannot be dissociated from political and national conflicts. In the West the Church, which the collapse of the Roman Empire had left comparatively free from secular control, was now the only international authority; but in the East the Empire endured, and the Church was a state church, subject to the Byzantine government; so that when, for example, the Coptic monophysites poured out the vials of their wrath upon the champions of the orthodox church, they were regarding the latter not only as impious heretics but as representing the hated power of Byzantium.

Thus, Christianity helped, in Egypt as elsewhere, to reawaken the slumbering national consciousness, to revive the national tongue, and so to weaken Hellenism. The Copts, whose national religion had fallen on evil days under Roman rule, had found in Christianity a new national religion; and they regarded Hellenic culture, on the one hand, as pagan, and, on the other, as part of that alien civilization to which they felt an instinctive repugnance.

But Hellenism did not die without a struggle. The pagan schools of philosophy lived on at Alexandria. Their best known name is that of Hypatia; but even after her tragic death, as late as the second half of the fifth century, a little circle of pagan philosophers

¹ On this subject see the article of Sir FREDERIC KENYON already referred to.

lingered there, with one member of which, Horapollon, a Cairo papyrus has recently brought us into contact¹. In a complaint to the authorities of the desertion and other misdeeds of his wife, he gives us an interesting picture of his work at Alexandria:—

"For, if it is not invidious to praise oneself, I have long ago acquired considerable reputation among the inhabitants of the great city of Alexander. For I kept a school there in the University, and always lived an honourable life, zealously practising my innate faculty of reason, and imparting instruction in philosophy to those desiring it. This disposition I inherited from my father and forefathers, and my teacher was my thrice blessed father Asclepiades, who laboured all his life in the Museums, teaching the young according to the education of the ancients."

And again:—

"I and my wife, who is also my cousin, were the children of two brothers on the father's side, I and she; and our fathers lived in common, never divided from each other either in disposition or in domicile or in their honourable life or in their devotion to the Muse of philosophy, so that many were doubtful whose children we were, whether I was the son of her father or she the daughter of mine."

But this pagan circle was by no means merely Hellenic; on the contrary, it represented a strongly national tendency, attempting a revival of the ancient Egyptian religion; and Horapollon himself was the author of an extant treatise on the hieroglyphic script.

Even in the sixth century and in a secluded place like the village of Aphrodito we find traces of Hellenic culture. Dioscorus of Aphrodito, whose archive has thrown much light on Byzantine administration in Egypt, is from this point of view a very interesting figure, standing, as he does, at the meeting-place of the ancient and the mediaeval world². Of Coptic ancestry, himself speaking and writing Coptic as well as Greek, he was brought up in a thoroughly Christian atmosphere and could quote tags of Scripture in his Greek petitions. His father became a monk and founded a monastery, of which Dioscorus was the legal representative. Yet Dioscorus was also schooled in the traditional literature of Hellas. He almost certainly owned the Menander and Eupolis codices of which I have spoken; he studied Greek grammar and Greek history, and read Homer, Nonnus, and the Pseudo-Anacreon, while his own verses are full of classical allusions, and, when not of the begging or complimentary order, are concerned with classical themes. Nevertheless, they illustrate vividly the decay of Hellenic culture. Dioscorus pronounced Greek by accent; and the attempt to scan it by quantity led at times to the most alarming results. Often it is impossible, by any amount of coaxing, to make his lines scan; and when they do, it does not follow that they express any particular meaning. They are an extraordinary jumble of tags from classical authors, misunderstood words, fantastic coinages of his own. He was using a language of which he had only the haziest comprehension.

The impression his verse gives us, that Greek culture was already far gone in decay, is strengthened by the Syene papyri half a century later and from a more remote centre³. The Greek of most of them is more or less illiterate; the scribes could rarely

¹ P. Cairo Masp. III, 67295. See J. MASPERO, *Horapollon et la fin du paganisme égyptien*, in *Bull. de l'Inst. fr. d'arch. or.*, XI, pp. 163—95.

² On him and his archive see J. MASPERO, *Un dernier poète grec d'Égypte: Dioscore, fils d'Apollon*, in *Rev. d. ét. gr.*, XXIV, pp. 426—81; A. CALDERINI, *Aegyptus*, II, pp. 149—53, and my Introduction to P. Lond. V.

³ These papyri are published in P. Mon. I and P. Lond. V, section III.

get through a long sentence without becoming involved in a hopeless tangle. And that of the ostraca found at Wadi Sarga by the Byzantine Research Fund¹ has often no relation at all to the ordinary rules of grammar and orthography. A passage in the will of Abraham, Bishop of Hermonthis², in which it is stated that the document had been "translated into the Egyptian tongue" for his benefit shows that it was possible to reach high office in the Church without a knowledge of Greek.

It is clear, in fact, that Greek was now, in Egypt, a doomed language, kept alive only by its use as the official tongue of the Byzantine government; and when that government ceased with the Arab conquest, Greek soon died out. For nearly a century, it is true, it lingered on for official use, and there were Greek notaries in the chancery of the Arab governor. And this was the sort of thing they were called on to write³:—

"In the name of God, Qurrah b. Sharik, Governor, to Basil, administrator of the village of Aphrodito. We glorify God, and next: We seem often to have written to you concerning the two-thirds part of the public gold-taxes of your district, and we thought that you had already paid this. Now when we instructed the notaries to look into the records of the Treasury in order to find what you had paid to the Treasury, we found that your work is unsatisfactory and worthless and that you are acting ill in this matter. For indeed, we did not send you to be idle and gluttonous, but rather we sent you to fear God and keep your faith and collect the just dues of the *Amir al-Mu'minin*⁴. For neither have you any excuse whatever nor have the people of your district; for the fruits of the earth have been abundant and God has blessed them and increased them beyond what was known in former years, and the price of corn has been high, and it was sold by the people of the district. Therefore, as aforesaid, you have no excuse whatever. See then to the arrears in your district of the two-thirds part of its public taxes with all speed. Collect this without keeping back one single penny of it; for God knows that your behaviour in the matter of the said public taxes was not pleasing to us; for we desired to requite you for this. If, therefore, there is any good in you, collect as aforesaid with all speed the arrears in your district of the said two-thirds part of the public gold taxes, and send it. For the people of the district ought to pay their dues readily and you should not leave them till they are straitened and find a difficulty in paying in full. But we know that the worthless and useless servant seeks excuses for delaying his duty. Do not you then be such or afford us a pretext against your life, we adjure you."

The language is Greek, but the thought, the whole mental idiom, is Oriental. And when we turn to the local records we find them, except the pagarch's official accounts, in Coptic, not in Greek. At the head of Greek and Coptic documents alike stands the Greek-Arabic "protocol" with its defiant formulae: "In the name of God the merciful, the compassionate. There is no God but God, He alone; Mahomet is the Prophet of God." It is a symbol, and a portent. With good reason did MOMMSEN call Islam "der Henker des Hellenismus," "the executioner of Hellenism." In this new world of dogmatism and religious bigotry, Christian or Mahomedan, there was no room left for the clear-eyed sanity of Hellas. Egypt had become once more a part of that Oriental world from which the fiery genius of Alexander had separated her for a thousand years.

¹ Edited by W. E. CRUM and myself in a volume now passing through the press.

² P. Lond. 77 = MITTIS, *Chrest.* 319.

³ P. Lond. IV, 1380 = WILCKEN, *Chrest.* 285.

⁴ "Commander of the Faithful," i.e. the Khalif.

A GNOMIC OSTRAKON

By J. G. MILNE, M. A.

The ostrakon here described was given to me by Dr Alan GARDINER, who obtained it at Luxor. It is a large irregularly shaped sherd of the ordinary red pottery of mid Roman period, probably from an amphora: its extreme measurements are 18 cm in height and 27 cm in breadth. After the inscription of the text, the sherd has been broken into at least three pieces, of which two are preserved: but a large section is missing from the upper left hand corner, and with it have gone parts of all but the last of the twelve lines of the text.

When the ostrakon reached me, its surface was flaking away, and the writing had already perished in places. It was badly salted, and soaking only saved part of the text. Fortunately Professor HUNT had seen it earlier and made a copy, which has been available by his kindness to control and supplement my readings.

The writing is a fairly well-formed uncial hand of the second century A. D. The twelve lines given formed the whole of a column: there is vacant space both above and below them. What remains of the text reads as follows

ΗΓΕΙΤΑΙ ΤΡΟΠΟΣ
ΙΑΜΟΝΗ
ΤΗΝ ΕΙΚΟΝΑ
ΕΝΟΣ ΚΡΙΤΗΣ ΠΟΤΕ
ΟΝ ΕΙΣ ΤΩ ΣΤΟΥΣ ΘΕΟΥΣ
ΧΡΗΜΑΤΩΝ ΚΑΤΑΦΡΟΝΩΝ
ΕΙΝΩΣ ΚΕ ΠΡΙΝ ΓΕΝΗ ΦΙΛΟΣ
ΗΣΟΝ ΚΑΝ ΚΑΚΗΝ ΟΡΓΗΝ ΕΧΗΣ
ΠΑΣΙ ΚΑΝ ΥΠΕΡΕΧΗΣ ΤΩ ΒΙΩ
ΟΓΗΡΑΝ ΓΕΡΟΒΟΣ ΚΟΝ ΕΛΑΝ ΕΧΗΣ
ΕΙΤΟ ΣΕ ΜΝΟΝ ΕΙΔΗ ΜΗΣΙ ΓΗΝ ΕΧΕ
ΜΗ ΠΙΣΤΟΝ ΗΓΟΥΤΟΝ ΚΑΤΗΓΟΡΟΝ ΛΟΓΟΝ

The fact that the twelfth line began with Μ, and fairly obvious restorations of two or three preceding lines, suggested that the whole collection was arranged on an acrostic scheme. Professor Gilbert MURRAY came to my assistance and produced the following reconstruction:

Ἀγαθὸς ἐν ἀνθρώποισιν ἡγεῖται τρόπος.
Βίον κατορθοῖ πάντ' ἀλήθεια μόνη,
Γέλῳ σκεῖ βασιλῇ τοῦ θεοῦ τὴν εἰκόνα.
Δύσφρων γενοῦ σὺ μηδένος κριτῆς ποτέ.

"Εοικε τιμῶν τοῖς γονεῖς ὡς τοῖς θεοῖς.
 Ζήσεις ἐν ὀλβῳ χρημάτων καταφρονῶν.
 "Ἡθῇ φίλων γείνωσκε πρὶν γενῇ φίλος.
 Θυμοῦ κράτησον, κἂν κακὴν ὁργὴν ἔχῃς.
 "Ἴσος ἴσθι πᾶσι, κἂν ὑπερέχῃς τῷ βίῳ.
 Καλὸν τὸ γηρᾶν, γηρόβοσκον ἔαν ἔχῃς.
 Ἀέγ', εἰ τι σεμνόν· εἰ δὲ μὴ, σιγὴν ἔχε.
 Μὴ πιστὸν ἥγοῦ τὸν κατήγορον λόγον.

It does not appear that any one of the foregoing lines is, or can be restored as, an exact quotation of any known verse: and in this respect the ostrakon is akin to most similar gnomie selections found in Egypt, the authors of which can rarely be identified¹. At the same time it is possible to trace a relationship to the general body of gnomie literature: in particular, the ninth line is very close to Men. Monost. 317 "Ἴσος μὲν ἴσθι πᾶσι, κἂν προύχῃς βίῳ, and might be taken as a quotation from memory of that line: it is quite as near as quotations of poetry from memory often are. And there are other more distant echoes in other lines.

Perhaps the most satisfactory account of the ostrakon would be to regard it as a literary exercise by a student who had to produce a set of moral maxims in acrostic arrangement, with liberty to draw on his knowledge of poetry or his faculty of invention for the purpose. The handwriting is that of a fairly practised writer: but the blunders of spelling in the tenth and eleventh lines do not suggest that he was a scholar, at any rate an accurate one. He may have felt the strain after getting so far with his exercise. But it can hardly be said that his contribution to literature is of much value.

¹ It may perhaps be noted here that the line *δ μηδὲν δδίκων οὐδενὸς δεῖται νόμον* in no. VII of the ostraka published in J. H. S. XXVIII (p. 126) is from Antiphanes (*cf.* Stobaeus IX, 15, ed. HENSE).

THE COINS FROM OXYRHYNCHUS

By J. G. MILNE, M. A.

The coins found during the six seasons of excavation at Oxyrhynchus by Drs. GRENFELL and HUNT were all examined and so far as possible identified year by year. A detailed list of the individual specimens may perhaps be replaced by a summary of the evidence which the finds afford and of some of the conclusions which may be derived therefrom in relation to the history of Graeco-Roman Egypt.

It must be remembered that these coins all came from the rubbish-mounds, and therefore represent the casual losses of the Oxyrhynchites in their daily life. Naturally no gold coins were turned up, and very few of the debased silver tetradrachms of the first and second centuries A.D.: a man who lost a valuable piece of money would search diligently till he found it. But bronze pieces, and the late third century tetradrachms which were little better than bronze, might be dropped and never missed before they were swept up with other rubbish and tipped out on the dust-heaps. The finds may accordingly be taken as fairly representative of the coinage of lower values circulating in Oxyrhynchus.

The most convenient division of the material for consideration will be in four groups—(A) Ptolemaic; (B) Roman to the time of the "reform" of Diocletian, covering the period during which a special currency, based on the tetradrachm as the standard unit, was struck for Egypt; (C) Roman from Diocletian to Justinian, when the Egyptian monetary system was supposed to be assimilated to that of the rest of the Empire; (D) Byzantine from Justinian to the Arab conquest.

(A.)

The Ptolemaic finds do not possess any features of special interest. There were in all 62 coins of this period, of which 2 were silver tetradrachms. The classification of Ptolemaic bronze is so uncertain that it would be of little value to group the specimens under reigns without full descriptions of the types: but there is a fairly clear distinction between the issues of the third century B.C. and those of the two following centuries: and only 7 of the coins found are referable to the earlier period. On the other hand, there are 9 examples of the easily identifiable issues of Cleopatra VII: and the 2 tetradrachms both belong to what is generally accepted as the last regular series of Ptolemaic silver. Like the papyri, the coins found suggest that the rubbish-mounds explored did not begin to accumulate till the latter part of the Ptolemaic rule.

Only one coin from outside Egypt belonging to this period was found—a small bronze coin of Kos of the third century (type *B. M. C.* 86—98). This is quite natural: foreign bronze would not be current under the Ptolemies, and there would be no mer-

chants from overseas at Oxyrhynchus to drop their own coins. It is perhaps only by chance that this one coin belongs to a place with which the relations of the early Ptolemies were particularly close, and which was for a time under their sway.

(B.)

The Roman coins of the first three centuries, so far as they are identifiable, belong to the following reigns:—

	Billon	Bronze		Billon	Bronze
Augustus		14	Commodus	2	2
Tiberius	1	4	Caracalla		1
Caligula		2	Sev. Alexander	6	3
Claudius	1	25	Gordian III	1	
Nero	8	3	Philip	8	
Galba		1	Gallus	4	
Otho	1		Valerian	4	
Vitellius	1		Gallienus	8	1
Vespasian		26	Claudius II	9	
Domitian		11	Aurelian	55	
Trajan	1	20	Tacitus	3	
Hadrian	3	48	Probus	69	
Antoninus Pius	3	37	Carus & sons	32	
M. Aurelius	1	10	Diocletian & colleagues	143	

As has already been noted, the bulk of the finds belonging to the two first centuries of Roman rule, during which a bronze coinage was regularly issued at Alexandria for local currency, are of this bronze. The few billon tetradrachms are fairly evenly spread over this period: the exceptional number of examples of Nero is explained by the enormous issues of his reign, which form the chief part of hoards for over a century. The proportion of bronze is really larger than appears from the figures above, since all the early billon coins could be identified, while there were 115 bronze which were too worn to be assigned to any reign, through they were clearly Alexandrian of the first or second century.

In addition to the billon and bronze coins, a large number of leaden pieces occurred. These I described fully in *Num. Chron.* 1908, pp. 287 ff., and the conclusions there stated have been generally accepted—viz: that these pieces were a token coinage of low value, issued approximately between 180 and 260, to replace the bronze, which ceased to appear in any quantity after the former date. The tetradrachms still circulated, and there must have been something to represent the lower denominations, obols and chalki, which are shown by the papyri to have been in regular use. If these tokens, of which over 300 were found, are included with the coins, they bring up the average of specimens between Commodus and Gallienus to that of the earlier and later periods.

After Gallienus, the tetradrachm rapidly deteriorated in intrinsic and also in current value: and this depreciation is reflected in the much greater numbers that occurred in the mounds. A tetradrachm was no longer worth looking for, if lost.

It is important to notice that during this period very few coins other than Alexandrian seem to have circulated at Oxyrhynchus. It has been supposed that the Roman imperial coinage was current in Egypt: but, although it was probably legal tender, there

is no evidence from finds, apart from one or two hoards from the vicinity of Alexandria, that it was used in any quantity. The mounds of Oxyrhynchus only produced two sesterii of Severus Alexander and one of Philip to represent the imperial issues before the time of Gallienus: the depreciated bronze denarii of that and later reigns were commoner, two of Gallienus, two of Aurelian, seven of Probus, five of Carus and his sons, and nine of the pre-reform issues of Diocletian and Maximian having been found. It would appear therefore that it was only late in the third century that imperial coins began to drift into Egypt: and this may be connected to some extent with the breaking down of the isolation of Egypt as a province.

This isolation, which was due to the deliberate policy formulated by Augustus, is marked by the absence of colonial and provincial, as well as imperial, Roman coins. Even if there had been a difficulty in securing the acceptance in Egypt of the ordinary issues of Rome with their unfamiliar standard and appearance, it might have been expected that coins more closely resembling the Alexandrian—*e. g.* the tetradrachms of the Syrian mints, which in size, fineness and style are almost identical with those of Alexandria—would have passed current. But I am not aware that any examples of these have been found in Egypt: and Syrian bronze coins only occur sporadically. The excavations at Oxyrhynchus produced three provincial coins of this period, all of bronze: one of Nicaea of Antoninus Pius (*Recueil* 78), one of Cyprus of Caracalla (*B. M. C.* 62), and one of Damascus of Philip (*B. M. C.* 23). These were probably chance importations: the first-named was pierced, and in view of the reverse type—Dionysos Ktistes—it may possibly have been worn as an amulet by its former possessor.

(C.)

All the coins found belonging to the next period are bronze, of the following rulers:—

Diocletian (post-reform)	19	Constantine II	50
Maximian	48	Constantius II	145
Constantius I	11	Constans	57
Galerius	10	Constantius Gallus	24
Maximin	18	Julian	6
Severus	2	Jovian	2
Maxentius	1	Valentinian I	19
Licinius	63	Valens	13
Licinius jr.	23	Gratian	15
Constantine I	240	Valentinian II	15
Martinian	1	Theodosius	51
Crispus	17	Arcadius	23
Delmatius	2	Honorius	9

In addition to these 34 barbarous imitations of late fourth century coins, and 1 Axumite coin, should be mentioned.

The first point of interest in relation to this period is in the mintages of the specimens found. The "monetary reform" of Diocletian assimilated the currency of Egypt to that of the rest of the Empire: and the mint of Alexandria, in common with those of the other provinces, struck a uniform coinage, with Latin legends and based on the

Roman standard, which might pass anywhere in the Roman world. The coins were regularly marked with the name of the mint from which they issued: and thus it is possible to trace to some extent the circulation of money between the various provinces. Nearly all the fourth century mints of the Empire are represented at Oxyrhynchus: naturally the Western issues are the more scanty. The inflow of coin from outside Egypt did not however assume importance immediately upon the reform: this can best be shown by a classification of the identifiable specimens under their mints in chronological groups for the period of approximately 110 years from the reform to the death of Arcadius. The first five groups (A to E) cover roughly ten years each, the last three (F to H) roughly twenty: the longer spaces have been chosen in the later part, because the material is more scanty, and also the sequence of issues during the latter half of the fourth century has not been studied so exactly as that of the Constantinian house, and there are more convenient limits at wider intervals.

	A	B	C	D	E	F	G	H	Total
Alexandria . . .	82	10	25	23	50	39	11	23	263
Antioch	1	5	18	24	27	9	4	18	106
Nicomedia . . .	.	.	22	30	18	9	2	3	84
Cyzicus	1	1	7	16	17	10	2	12	66
Constantinople .	.	.	.	14	11	9	5	8	47
Heraclea . . . .	.	.	5	8	3	1	.	.	17
Thessalonica . .	.	.	4	16	6	5	5	1	37
Rome . . . . .	.	1	39	13	6	2	5	.	66
Siscia . . . . .	.	.	4	9	1	.	.	1	15
Aquileia	1	.	1	6	1	1	.	2	12
Arles . . . . .	.	.	13	2	1	.	.	.	16
Trèves . . . . .	.	1	4	2	.	.	.	2	9
Tarraco . . . . .	.	1	1	3	.	.	.	.	5
London . . . . .	.	.	1	.	.	.	.	.	1
Total	85	19	144	166	141	85	34	70	744

It will be seen from this table that in the first decade after the reform comparatively few coins from outside mints occur: but they rapidly become more numerous, and by the end of the reign of Constantine the local issues form only a small proportion of the whole. This evidence agrees generally with that of the hoards which have come under my observation: for instance, in a hoard from Denderah (PETRIE, *Denderah*, p. 36), dateable about 310, coins of the Alexandrian mint are 70% of the whole: in one of about 326 from Antinoë, 47%: in one from the Fayûm (*Journ. Intern.* XVI, pp. 1 ff.) of about 345, 25%: in one of about 360, 44%: and in one of about 400, 35%. (The two last will be published shortly in the *Journal of Roman Studies*.)

Evidently it took some years after the monetary reform of Diocletian to break down the bar (whether legal or customary) against the importation of coin into Egypt. Similarly the Egyptians continued to reckon in drachmae instead of in denarii, and it was not till about twenty years after the change that the new standard became predominant. But thereafter the importation grew rapidly, and soon only about a quarter of the money circulating in Egypt was of local issue: later the influx diminished, and a larger proportion of the coins is of Alexandrian mintage.

It would be interesting to discover the economic causes which led to Egypt becoming a coin-importing country under Constantine: but they can hardly be conjectured. The main export of Egypt during the Roman rule was corn: but this was largely collected in the form of taxes and sent to Rome without any equivalent return in money or kind: and there is no evidence to suggest that there was any change in this matter in the fourth century. Neither is there anything to point to a revival of trade in other respects at this time: from the middle of the third century all the indications are that economically Egypt went rapidly down hill. And it is hardly likely that the imperial government subsidised Egypt. The problem is one for which I cannot find a satisfactory solution: I have previously suggested (*Journ. Intern.* 1914, p. 36) that the hoarding tendency of the Egyptian would lead to an inflow of coin, but this, though it may have been a contributory factor, does not adequately explain the position shown by the figures given above.

Whatever the explanation of the situation in the fourth century may be, in the fifth everything points to a complete economic collapse. There is not in the finds from Oxyrhynchus a single coin of recognisable official mintage belonging to the period between Honorius and Justinian. The only pieces that may be ascribed to this time are barbarous imitations of the issues of the Theodosian house, mere bits of bronze with degraded types, often reduced to a jumble of lines, and meaningless legends, sometimes nothing but dots and dashes. I have suggested (in a paper to appear in the *Journal of Roman Studies*) that these bits of bronze represent the "myriad of denarii" which was the unit of reckoning in Egypt at this period: the depreciation must have been somewhat parallel to that in Russia at the present day, as a late fourth century papyrus gives an equation of 2020 myriads of denarii to the gold solidus. Obviously it would not be worth while to spend any trouble over preparing a coin of such low value, which can hardly have had more meaning than a counter: in fact, the composition of hoards of this period suggests that the pieces of metal in them were treated as counters, since they consist of coins of various periods and countries, many worn to illegibility or clipped to fragments, with an intermixture of bits of bronze or even lead which show no stamp nor any sign of ever having been meant for coins.

The only thing about these barbarous imitations which suggests that they may have been issued officially is the fact that they are struck, not cast. In the early part of the fourth century large quantities of cast coins were in circulation in Egypt, and the moulds from which they were made are frequently found: I described two groups from Oxyrhynchus in *Num. Chron.* 1905, pp. 342ff. These were probably the work of forgers, who would find it a profitable occupation to make counterfeit coin when the coin had an appreciable value above its metal contents. But in the conditions of the fifth century it would have been a waste of energy for an Egyptian forger to cast, much more to strike, anything purporting to be a bronze coin.

(D.)

An attempt to rehabilitate the Egyptian bronze currency was made under Justinian, when a special issue was made at the mint of Alexandria. The normal piece was of 12 nummia: larger and smaller denominations were also introduced, but did not last long: the 12 nummia however continued to be struck till the Arab conquest. The specimens of this series found at Oxyrhynchus were

Justinian	10	Maurice	7
Justin II	7	barbarous	14
Tiberius	5	Heraclius	14

[57 examples could not be definitely identified.]

Coins of this type supplied practically the whole of the bronze currency of Egypt during the last century of Roman rule. Anastasius had previously reformed the imperial bronze coinage by the introduction of the large follis of 40 nummia and its subdivisions: and a good many specimens of his issues and those of Justin I and Justinian are found in Egypt: these are from outside mints, as the mint of Alexandria did not strike these denominations. But it is rare to come across any examples belonging to reigns later than Justinian, and it would appear that after that emperor had revived a special coinage for Egypt the old monetary isolation of the country was renewed. The only non-Alexandrian coin of this period found at Oxyrhynchus was an early follis of Justinian.

The specimens classed as "barbarous" are pieces of 12 nummia of the same general type as those of Justinian and his three successors, but have unintelligible legends. They are probably to be referred, as in the British Museum Catalogue, to the reign of Focas, which is otherwise unrepresented in this series: the work of the mint of Alexandria had steadily degenerated, and some coins, particularly of Maurice, are only saved from being classified with the "barbarous" ones by the fact that the legend retains enough fragments of the emperor's name to show what the engraver had in mind. Heraclius introduced a new design, and with it an improvement in execution. An alternative would be to assume that the "barbarous" group was struck after the Arab conquest: but, while it is not improbable that the Arabs would continue to strike, as they certainly used, coins of the Byzantine types, they would more naturally have imitated the new design of Heraclius rather than the old one which had been abandoned for over 30 years. Some rude imitations of the coins of Heraclius, which may be Arab, have occurred elsewhere in Egypt.

The standard unit of reckoning during this period in Egypt was the gold solidus, fractions of which were expressed in carats: and the relationship of the bronze to the gold has not been determined.

The Arab conquest virtually marks the limit of the finds of coins in the mounds of Oxyrhynchus: only 20 Arab pieces, all of an early period, were discovered.



AN ALEXANDRIAN COIN OF DOMITIA

By G. F. HILL

Fine portraits on coins of Alexandria are rare enough to make it worth while to call the attention of readers of this *Journal* to the unusually well-preserved bronze of Domitia Longina, the wife of Domitian, which has recently been acquired by the British Museum. It was formerly in the collection of Mr F. A. WALTERS¹. The inscriptions are, on the obverse: ΔΟΜΙΤΙΑ ΣΕΒ ΔΟΜΙΤΙΑΝΟΥ ΚΑΙΣΑΡΟΣ ΣΕΒ ΓΕΡΜ; on the reverse ΕΙΡΗΝΗ ΣΕΒΑΚΤΗ and in the field I. ΛΙΑ. The reverse type is Eirene, standing l., holding in her l. hand a caduceus and the fold of her robe, in her r. hand an olive-branch. The coin measures 26 mm, weighs 10.48 g, and has a very fair greenish gray patina. A similar specimen (to judge by the illustration in very poor state) is in the DATTARI Collection². A similar reverse type, with the same inscription and date, is also associated with the head of the Emperor himself³.

Among the coins of this year is another representing Domitia, this time seated, in the guise of Euthenia, holding ears of corn and sceptre. On an ill-preserved specimen in the British Museum, POOLE gave the inscription of the reverse as [ΕΥΘΗΝΙΑ?] ΣΕΒΑΚΤΗ. But a better example illustrated by DATTARI shows that we should read ΔΟΜΙΤΙΑ ΣΕΒΑΚΤΗ⁴.

¹ Who published an illustration of it in the *Proceedings* of the R. Numism. Soc., Apr. 20, 1911, p. 18.

² *Numi Augg. Alexandrini* (Cairo 1901) p. 38 no. 629, Tav. II. The obverse inscription is imperfect at both ends, the word ΣΕΒΑΚΤΗ is evidently also lacking on the reverse, and the object which I take to be an olive-branch is described as two ears of corn. A specimen once in the Lager Cabinet was also evidently similar to ours; it must have been a poor specimen, since it was originally entirely misread and attributed to Termessus in Pisidia. (See MÜLLER, *Suppl.* IX p. 39 no. 90; *Zeitschr. für Numism.* XII p. 8).

³ DATTARI, *op. cit.*, p. 30 no. 488 (not illustrated). The spelling ΕΙΡΗΝΗ is presumably a slip of the printer, not of the coin-engraver.

⁴ B. M. C. *Alexandria* p. 36 no. 292 Pl. XXII; DATTARI, *op. cit.*, p. 26 no. 431, Tav. VIII. It is true that there was a specimen in the Bracciani Museum on which Zoëga read ΕΥΘΗΝΙΑ (Schwabe, as below, p. 36). But the letters ΔΟ are, I think, faintly visible on the British Museum coin, now one knows they should be there.

The eleventh year of Domitian (91—92 A. D.) was marked by a great outburst of coinage at Alexandria. Out of the 186 bronze coins of the Emperor and Empress which DATTARI gives in his Catalogue, no less than 59 are of this year. Further, in the tenth and eleventh years, the old types are for the most part discarded, and new ones introduced. Mr. MILNE observes that the most remarkable point about the bronze coinage of years 10—12 of Domitian at Alexandria is the change in style: there is a sudden break, with a great improvement both in art and in fabric. Domitian is called in year 11, for the first time, *Θεοῦ υἱός*. All this, as others have seen, points to some connexion with the Decennalia of the Emperor¹.

¹ See especially L. SCHWANK, *Die kaiserlichen Decennalien und die Alexandrinischen Münzen* (Tübingen, Progr., 1895—6), pp. 35 f.

THE STRATEGI AND ROYAL SCRIBES IN THE ROMAN PERIOD

By JOHN GAVIN TAIT

I have recently been trying to collect evidence for the supposition that in Egypt in the Roman period it was the rule that a person should not be appointed strategus or royal scribe of the nome of which he was a native. I do not claim that this is more than a hypothesis. It is certain that a man might hold these offices outside his *idia*, but it is not definitely proved either that he could or that he could not hold them in his *idia*. The evidence so far as known to me is as follows —.

(1) I do not know of any instance (in the Roman period) where it can be proved that a strategus or royal scribe was a native of the nome in which he held office, or a landowner in that nome, or had previously held subordinate state offices in that nome, or continued to reside there after his retirement. When a strategus is stated to have previously held municipal offices the question is to be enquired into whether the municipal titles refer to the metropolis of the same nome, or to another metropolis, or to Alexandria.

In P. Brit. Mus. 261 l. 132 and 269 *Ἀπίων*, former strategus, is mentioned as a landowner in the Fayûm, but it is not stated where he had held office. In B. G. U. 19 a former royal scribe of the division of Polemo presides at a trial in which the parties probably belonged to the Fayûm; but this does not necessarily imply that he resided there permanently. In P. Hamburg 13, where MEYER read *Σεμπρωνίου στρα(τηγοῦ) ἐκτὸ Παῦν(ι) κ(ατ)ολ(ων)* (for *Παῦν[ι]* I conjecture *ναυ[βίου]*) I think *στρα(τηγοῦ)* improbable, as it does not seem likely that the strategus would have gone to a village to pay a sum of 4 dr. to the local *πράκτορες* instead of paying it directly to the *δημοσία τράπεζα* in the metropolis. I would therefore prefer to read either *στρα(τιώτου)* or *στρα(τηγίσαντος)*; in the latter case Sempronius may have been strategus of another nome; likewise in B. G. U. 1030, where I think it most improbable that the words *ἐξθέως λαβὼν μου τὰ γράμματα ἐλθέ μοι* would have been used by a private person in addressing the strategus, or that a strategus actually in office would have been able to betake himself to the village of *Ἰβίων* whenever a private acquaintance desired him to do so. *Σεμπρώνιος* and *Σαραπάμμων* are therefore to be struck out of the list of strategi of the Fayûm. I may remark incidentally, by way of supplement to that list, that the Aberdeen papyri show that *Ἡρώδης ὁ καὶ Τιβέριος, στρατηγὸς Θεμίστου μερίδος*, acted for a time as deputy of *Πρώταρχος στρατηγὸς Ἡρακλείδου μερίδος*, and that the strategus *Οδέγετος* was a different person from *Οδέγετος ὁ καὶ Σαραπίων* and was in office about 165 with *Σερήνος* as royal scribe.

(2) The names of the strategi and royal scribes are not as a rule names derived from the local cults or other names specially frequent in the districts where they held

office. This criterion however is of much less importance in regard to the upper classes than to the lower, and here it can scarcely be said to prove anything definite either way.

It is noteworthy, however, that whereas in the Ptolemaic period some of the strategi and the majority of the royal scribes have Egyptian names, in the Roman period none of the strategi have Egyptian names, and of the royal scribes only one has an Egyptian name in addition to his Greek name, *Φιλωτάδης ὁ καὶ Παῖσις*. The majority of the strategi and royal scribes in the Roman period have purely Greek names, and among these there are several of a type which we should not expect to find in any but purely Greek families — *Ἀνδρόμαχος, Ἀρχίβιος, Διοφάνης, Εὐάγγελος, Εὐδήμος, Εὐδωρος, Ἡπιόδωρος, Ἰάσων, Κάνωπος, Λεωνίδης, Λυσανίας, Μεγαλώνυμος, Μένανδρος, Περικλῆς, Πλούταρχος, Ποσιδώνιος, Πολυκλῆς, Τιμαγένης, Φιλίαρχος, Φιλόνικος, Φωκίων, Χρύσερμος*. Several have Graeco-Egyptian names, i. e. names which though Greek in form are derived from those of Egyptian deities, as *Ἀμμώνιος, Σαραπίων, Ἰσίδωρος, Ὠριγένης*; but names of this type are no indication of Egyptian origin. About equally frequent with these are the Latin names. (I understand by a Latin name a name derived from the Latin language, by a Roman name a name which indicates that its bearer was a Roman citizen.) Of the strategi and royal scribes before 212 about one in five were Roman citizens, but their provincial origin is indicated by their Greek cognomina, their gentile names being those of the Emperors from whom their families had received the citizenship or of the patrons by whose influence they had obtained it. After 212 they were of course all Roman citizens.

(3) The *διαδεχόμενος τὴν στρατηγίαν* in the absence of the strategus, or during a vacancy, is usually the royal scribe, sometimes a person who had previously held the office of gymnasiarch or other municipal offices, in two instances the strategus of another *μερίς*, but in no instance a former strategus. But of course this in itself proves nothing.

(4) In the "Gnomon of the Idios Logos," paragraph 10, we read *τοῖς ἐν δημοσίαις χρεῖαις οὐδεὶς οὐκ ἔξδον ἀνεῖσθαι ἢ δανείζειν ἐν οἷς πραγματεύονται τόποις*. As applied to the strategi, if a man were appointed strategus (or royal scribe) of his own nome, this rule would have amounted almost to a prohibition to acquire property or lend money at all; but if he held office in another nome than his own it would have been much less inconvenient, since in the latter case he could scarcely have wished to acquire property or lend money in the nome where he held office, unless with a view to taking an improper advantage of his position.

(5) There are instances where the same person is known to have been strategus or royal scribe in different nomes, therefore in at least one instance, if not in both, outside his *ιδία* — Archiv II p. 444 l. 11 *Ἀλεξάνδρον γενομένον γυμνασιάρχου καὶ ἀρχιερέως καὶ στρατηγῶν Ἀπολλωνοπολίτου καὶ Σεθρωίτου*, l. 27 *Ἀπολλωνίου νεωτέρου γενομένου γυμνασιάρχου καὶ στρατηγῶν Σεθρωίτου καὶ βασιλικῶν Βουβαστείτου*, P. Oxy. 1255 *Κλαυδίου Διοσκουριδῆ τῷ καὶ Χαιρέα γενομένῳ στρατηγῷ Διοπολίτου* (?) *στρατηγῷ Ὁξυρυγίτου* and perhaps also P. Oxy. 61, where I conjecture [*Ἀδρήλιος Σαραπίων ὁ καὶ Μονιμαῖος*] *γενόμενος* [*στρατηγός*] or [*βασιλικός*] *γραμματεὺς*] (sc. *Ὁξυρυγίτου* *ὑπὲρ στρατῆρος* [*Ἐρημοπολίτου*] or the like. In other instances it is of course impossible to decide whether, when the same name occurs in the lists of strategi of different nomes, the same person can be intended.

(6) The inscription in Archiv II p. 144, already quoted, mentions seven persons who had been *γυμνασιάρχου* or *ἀρχιερεῖς* at Alexandria and also strategi or royal scribes of various nomes in the *χώρα* — the *Ἀπολλωνοπολίτης, Βουβαστίτης, Βουσιρίτης, Ἡρακλεο-*

πολίτης, Μαριώτης, Σεβεννίτης, Σεθρῳίτης. Compare Archiv II p. 448 Διδύμωι Σαραπίωνος τοῦ ἐνάρχου ἀρχιερέως τῶν κυρίων Σεβαστῶν γενομένου βασιλικῶς γραμματέως Ἐρμοπολίτου. In P. Oxy. 246 Παπίσχωι κοσμητεῦσαντι τῆς πόλεως καὶ στρατηγῷ Ὁξυρυγχίτου, the πόλις is certainly Alexandria; and in W. Chrest. 176 Φιλοξένῳ κοσμητεῦσαντι στρατηγῷ the title κοσμητεῦσας probably refers to Alexandria rather than to Arsinoe. In P. Ryl. 149 Γαίον Καίσαρος Σεβαστοῦ Γερμανικοῦ ἀρχιερεῖ Γαίωι Ἰουλίωι Ἀσκληῖ ἐξηγη(τῇ) καὶ στρατηγῷ, the assumption by the strategus of the office of chief priest of Gaius was an extraordinary compliment to the reigning Emperor, and the title ἀρχιερεὺς is placed before the others because the Emperor's name had to come first, but the apparent cumulation of the office of ἐξηγητῆς with that of strategus seems equally unintelligible whether the title be supposed to refer to the metropolis or to Alexandria. I had conjectured ἐξηγη(τεῦσαντι), but in a papyrus at Vienna (R 172) quoted by WESSELY "*Karanis*" p. 66, where the same person appears to be mentioned, ἐξηγητῇ is written out. Compare however P. Oxy. 1252 Ἀδρηλίῳ Ἡρακλείδῃ ἐξηγητῇ Ἀλεξ(ανδρείας) στρα(τηγῷ) Ὁξ(υρυγχίτου). In P. Oxy. 59 l. 5 Ἀδρηλίῳ Ἀπολλωνίῳ γενομένῳ ἑπομνηματογράφῳ, and 1191 l. 10 Ἀδρήλιος Ὀλύμπιος γενομένος ἑπομνηματογράφος στρατηγὸς Ὁξυρυγχίτου, if the title ἑπομνηματογράφος refers to Oxyrynchus this would seem to conflict with my theory. It is uncertain whether or not there were ἑπομνηματογράφοι in the μητροπόλεις (cf. OERTEL "*Die Liturgie*" p. 351) but when we find in P. Oxy. 55, 59 l. 2, 1191, B. G. U. 1073, 1074, persons who had been ἑπομνηματογράφοι at Alexandria acting as *πρωτάνεις* at Oxyrynchus, I think we may safely infer that in P. Oxy. 59 l. 5 and 1191, the title ἑπομνηματογράφος refers to Alexandria. In P. Oxy. 1102 l. 4 note the editor conjectured that the ἑπομνηματογράφος Cerealis might be identical with the person so called who had been strategus in the Fayûm a few years earlier, which is possible but quite uncertain. Compare also P. Ryl. 143 Διδύμῳ Ἰέρακος Ἀλθαίῃ τῶν ἐν τῷ Μουσείῳ σειτομένων φιλοσόφων ἀτελῶν στρατηγῷ. I now think it probable that in all instances where a strategus, in official letters written by him or in petitions addressed to him, is described as a previous holder of municipal offices, the municipal titles are to be understood to refer to Alexandria, and that the titles of municipal offices in the μητροπόλεις, which were of much less importance than that of the strategus, were not inserted in such documents. On the other hand I do not know how to explain P. Tebt. 313 l. 13 Διοσκόρου Ἀπολλωνίου γυμνασιαρχήσαντος στρατηγῆσαντος ἡμῶν. MARTIN and PAULUS wrongly include Διόσκορος in their lists of strategi of the Fayûm, having apparently not noticed that the document was written at Heliopolis. If the title γυμνασιαρχήσαντος refers to Heliopolis Διόσκορος would seem to have been gymnasiarch and strategus in the same place. The expression στρατηγῆσας ἡμῶν is unusual, but from the original the reading seems to be right.

(7) In P. Oxy. 1210, a list of persons exempt from the poll tax, we read in l. 11

βασιλικὸς γραμματεὺς Τεντυρίτου
Κυνοπολίτου α.

WILCKEN, Archiv VI p. 293, supposes that Τεντυρίτου is miswritten for Ὁξυρυγχίτου, which is most improbable. The right explanation is that given by OERTEL "*Die Liturgie*" p. 171, that the individual in question, though a native of the Κυνοπολίτης, and therefore liable to the poll tax in that nome, had been appointed royal scribe of the Τεντυρίτης, and by this appointment was exempt from the poll tax. The τοπογραμματεὺς and κομογραμματεὺς held office in their own nome — though probably not in their own village (cf. OERTEL

op. cit. p. 159 on P. Strassb. 57) — but the βασιλικὸς γραμματεὺς in another nome. It is somewhat remarkable that he obtained exemption from the poll tax only in virtue of his office and was not already exempt either as a citizen of one of the Greek cities or as a κάτοικος; but we know that the ἀπὸ γυμνασίου were not as such exempt from the poll tax, but those of them who were not exempt on other grounds were included in the class of μητροπολίται δωδεκάθερχοι (or the like), of which however they formed only a minority.

(8) The well known strategus Ἀπολλώνιος of the Ἀπολλινοπολίτης ἑπταχωμίας had his home and his property in the Ἑρμοπολίτης. It is probable that the papyri were actually found at Hermopolis, having been brought thither by Apollonius on his retirement, since on the supposition of their having been found at Heptakomia it does not appear why the collection should consist exclusively of documents relating either to the administration of the nome under this Apollonius or to the private affairs of the same Apollonius; and there is no other evidence that any papyri were actually found on that site. At any rate it seems clear that Apollonius was not a landowner in the nome in which he held office, and that his connection with that nome began and ended with his term of office as strategus.

(9) In B. G. U. 981, no doubt found in the Fayûm, Χαιρήμων, a citizen of Alexandria, having been appointed royal scribe of the nome of Diospolis Parva, engages through the agency of the φροντιστὴς in charge of his estate in the Fayûm a certain Πτολεμαῖος to act as his γραμματεὺς (which we might here translate by "private secretary"). In B. G. U. 929 we find a royal scribe of the Saïte nome as a landowner at Heracleopolis; in P. Oxy. 1257 a strategus of the Ταπίτης as a landowner in the Ὀξυρυγχίτης; and in P. Brit. Mus. 604 l. 240 a former στρατηγὸς Ἡλιοπολίτου (?) as a landowner in the Θινίτης.

(10) P. Oxy. 1219 is a letter from Ἀρίστανδρος, an inhabitant of Oxyrhynchus, to his son Ἀπίων, royal scribe of the Letopolite nome. The papyrus must afterwards have been brought back to Oxyrhynchus.

(11) In P. Oxy. 1274, a contract drawn up at Oxyrhynchus, Ἀριστοῦς daughter of Ἡρώδης ex-gymnasiarch and senator of Oxyrhynchus, with her κύριος Νικοκλῆς ex-gymnasiarch of Oxyrhynchus, on receiving the news that her husband Ἀχιλλίων had died in office as royal scribe of the Ἀλεξανδρέων χώρα, appoints a certain Ἡρακλείδης to go to Alexandria to register the inheritance of her son Διονύσιος, gymnasiarch of Oxyrhynchus. None of these persons are stated to have been magistrates or even citizens of Alexandria. That the office of βασιλικὸς γραμματεὺς of the Ἀλεξανδρέων χώρα should have been entrusted to an inhabitant of Oxyrhynchus and not of Alexandria seems intelligible only on the supposition that it was the rule that a man should hold such offices only outside his ἰδία. I have left out of consideration the στρατηγὸς τῆς πόλεως, as his position did not correspond to that of the strategi of the nomes.

(12) P. Oxy. 57 is a letter from a strategus of the Oxyrynchite nome to Ἀπίων, formerly strategus of the Ἀνταίοπολιν, written at the instigation of his successor, demanding payment of a fine. Apion had evidently left Antaeopolis at the end of his term of office and settled at Oxyrhynchus. The same Apion reappears in P. Oxy. 1664, a flattering letter addressed Ἀπίωνι γυμνασιάρχῳ στρατηγήσαντι Ἀνταίοπολιν παρὰ Φιλοσαράπιδος ἐνάρχου ἱεροποιοῦ Ἀνταίουπόλεως. The word πατρίδος (l. 9) seems to suggest that Apion was a native of Antaeopolis; but if I see rightly he was gymnasiarch at Oxyrhynchus, where the papyrus was found, since the words μεμνημένη τῆς ἀγαθῆς σου

προαιρέσει imply that he had left Antaeopolis. He must therefore have been a citizen of Oxyrhynchus. Thus it seems difficult to decide which of the two places was legally his *idia*. Another *στρατηγός Ἀνταιοπόλεως* occurs in P. Oxy. 1443.

(13) A series of inscriptions on the colossus of Memnon, C. I. G. 4721-3, 4732, 4736-7, record the visits of L. Funisulanus Charisius, *στρατηγός Ἐρμωνθείου Λατοπολείου, Κέλερ* strategus, probably of the *περὶ Θήβας, Ἀρτεμίδωρος βασιλικὸς γραμματεὺς Ἐρμωνθείου καὶ Λατοπολείου*, and *Χαιρήμων* strategus of the same nomes. If these men had been natives of Thebes or Hermonthis the colossus of Memnon would have been familiar to them from their childhood. The name of the strategus in C. I. G. 4722 = O. G. 680 indicates if I see rightly that his father or grandfather had been a favourite of Funisulana Vettulla the wife of C. Tettius Africanus prefect of Egypt under Domitian (and probably either daughter or sister of L. Funisulanus Vettonianus, for whom cf. Prosopographia Imp. Rom. F 396), for whom her husband at her instigation had obtained the Roman citizenship. If this be so Charisius is much more likely to have belonged to Alexandria than to Hermonthis. O. G. 702 mentions a strategus Plinius Caepio in the Great Oasis. As the name Plinius is comparatively infrequent it seems not improbable that the patron to whom his family owed the citizenship was one or other of the two famous Plinys, but if so the man is not likely to have been a native of the Oasis.

(14) B. G. U. 747 is a letter from a *στρατηγός Κοπτίου* to the prefect, with the prefect's reply. The papyrus is not likely to have been found at Coptos, because no papyri at all are known to have been found there. This however is not decisive, because the papyrus is not the original but an *ἀντίγραφον*, and as we do not know by whom or for what purpose the copy was made we cannot tell under what circumstances it was brought to the Fayûm or whenever else the papyrus was found. The same applies to P. Oxy. 708, a copy of an official letter to a *στρατηγός Λιοπολείου*. B. G. U. 1095 is a letter to a former strategus of the *περὶ Θήβας*, but it is uncertain whether or not it was found at Thebes; likewise P. Strassb. 116, a petition to a royal scribe of the nome of Edfu, may or may not have been found there. P. Par. 69, containing the *ἐπομνηματισμοί* of a strategus of Elephantine, was no doubt actually found there.

(15) In the Oxyrhynchus papyri there are several documents addressed to strategi or royal scribes of nomes in the Delta — P. Oxy. 500 and 1458 (*Ἀθριβίτης*), 1301 (*Προσωπίτης*), and 931 (*Σεβεννότης*) besides 1219 already quoted (*Ἀητοπολίτης*). So far as I can see the only satisfactory explanation of the discovery of these papyri at Oxyrhynchus is that the officials in question belonged to Oxyrhynchus and returned thither on their retirement from office. It may be thought surprising that they should have taken official documents away with them, but Apollonius seems to have done so, and it is not likely that a large quantity of documents were preserved permanently in the bureau of the strategus; those which it was necessary to preserve were deposited in the *βιβλιοθήκη δημοσίων λόγων*.

(16) Similarly B. G. U. 92, 649, and 730, addressed to a *στρατηγός Φαριζαίου*, cannot have been found in the Delta, but were most probably found in the Fayûm; so certainly P. Tebt. 340, addressed to a *στρατηγός Μενδησίου*. W. Chrest. 52 is a letter from a royal scribe of the nome of Nesyt as deputy strategus to himself as royal scribe. This also is not likely to have been found in the Delta; the name *Ἡραισιών* might perhaps suggest Memphis. Compare also P. Brit. Mus. 921, addressed to a *βασιλικὸς γραμματεὺς Φθεμφουθίου*; P. Lips. 123, a receipt from a *βιβλιοφύλαξ τῆς ἐν Πατριχοῖς βιβλιοθήκης* at Alexandria to a *στρατηγός Μενδησίου*; an unpublished Leipzig papyrus quoted by WILCKEN

Chrestomathie p. 60, which is a similar receipt to a στρατηγός Κοπίτου; P. Oxy. 597, addressed to a strategus of the division of Heracleides in the Fayûm, but found at Oxyrhynchus; and 986, consisting of documents which probably came from the bureau of a royal scribe of the division of Polemo, which have been joined together to form a roll on the verso of which is written a commentary on Thucydides (853).

The occurrence of documents written in the Delta might sometimes be explained by the supposition that the individuals concerned had subsequently removed to the Fayûm (*ἀναχωρηκότες*), but for those quoted above this explanation is not suitable. We know that documents written at Alexandria were sometimes brought to the χώρα after being sold as waste paper, but it seems less likely that they should have been removed in this way from one nome in the χώρα to another.

(17) While P. Oxy. 931 is a private letter to a strategus of the Sebennytes, 1219, to a royal scribe of the Letopolites, and 1664 to a former strategus of the Antaeopolites, none of the papyri from Oxyrhynchus hitherto published contain private letters to strategi of the Oxyrhynchite nome, and only one, P. Oxy. 746, is a private letter to a royal scribe of that nome. Of course official letters, petitions, declarations, and reports addressed to these officials would as a rule have remained at Oxyrhynchus even after the officials themselves had gone away. So far as I know none of the papyri found in the Fayûm, except B. G. U. 1030 which I have already discussed, contain private letters addressed to strategi or royal scribes of the Arsinoite nome.

(18) In P. Fay. 23a we read that a certain Φιλάδελφος of Erothis (the situation of which is unknown), after being εισαγωγεὺς στρατηγοῦ Ἀμμωνιακῆς and holding other offices in the Καβασίτης and Μετηλίτης, was now γραμματεὺς βασιλικοῦ Αἰθῆς. This seems to show that the γραμματεὺς and εισαγωγεὺς were appointed from another nome (cf. B. G. U. 981 already quoted, also P. Oxy. 602) which seems intelligible only on the supposition that the same rule applied to the strategi and royal scribes themselves.

As the instances which I have quoted extend over the whole period from Augustus to Diocletian, if my theory is correct the introduction of the supposed rule must be ascribed to Augustus. After Diocletian of course everything was changed. There is no reason to assume the existence of any such rule in the Ptolemaic period, but the Ptolemaic strategi were professional officials, while those of the Roman period were not.

It is not difficult to find the reasons which may have made such a rule appear desirable. If a man had been appointed strategus or royal scribe of the nome of which he was a native, or in which he was a landowner, he could not have been prevented from using his position to promote his private interests or those of his relatives; and on other grounds also it was necessary to secure his impartiality. The strategi and royal scribes were evidently selected from the same class as the municipal ἄρχοντες, but it would naturally have been thought desirable to keep these state offices distinct from the municipal offices and therefore inexpedient to promote a municipal official to the office of strategus of the same nome, or to make the στρατηγία an object of competition among the municipal officials. Also if a strategus had continued to reside in the nome after his retirement his presence might have been a source of embarrassment to his successor, while he himself would have been aggrieved by being placed under the orders of his former subordinates. Moreover, if we suppose that Augustus, in addition to depriving the strategus of all military competence and making the royal scribe a sort of collega minor of the strategus, laid down that these offices should be tenable only by Greeks, only

outside their *ídia*, and only for a short term of years, all these measures may have been intended to make it impossible for a strategus to acquire a local influence which might make him a possible source of danger to the government. The inconvenience arising from the fact that a strategus on his appointment would have been ignorant of the topography of the district and unacquainted with his subordinates might have been diminished if the strategus and the royal scribe were not changed simultaneously. After the introduction of the *βουλή* in 202, while the *βουλή* represented the town, the strategus was the local representative of the central government; it was therefore necessary that he should not be himself a member of the *βουλή*, and this could be secured only if he were appointed from another nome, since the strategi belonged to the same class as the *βουλευταί* and held office only for a few years, whereas the *βουλευταί* held office for life.

WILCKEN and OERTEL leave undecided the question whether or not the *στρατηγία* was a liturgy. P. Ryl. 143 shows that down to the reign of Gaius it was not so, but at that date according to OERTEL's view, which I accept, the system of liturgies did not yet exist. WILCKEN was certainly right in saying that the *χωρικά λειτουργία* in the edict of Tiberius Alexander do not include the *στρατηγία*. That the strategi were appointed for a term of three years is in itself no evidence either for or against the liturgical character of the office. In a few instances this term is known to have been exceeded, and on the other hand the prefect no doubt had the power either to remove a strategus for misconduct or incompetence, or to permit him to resign on account of ill health before the three years had expired.

In P. Oxy. 474 l. 34 we read *κατελαβόμεν ἑνίοις τῶν στρατηγῶν καὶ βασιλικῶν γραμματέων σαλάρια χρόνον τινὸς δι' ἐαυτῶν ἀνελομένοις* (sc. ἀπὸ τῆς δημοσίας τραπέζης). The offence of the officials here censured was not that of appropriating salaries to which they were not entitled, which would certainly have been much more severely dealt with, but that of drawing instalments of their salaries from the bank without waiting for the authorisation of their superiors. (For the use of *ἀνέλεσθαι* cf., e. g., P. Amb. 109 l. 9.) P. Oxy. 474 proves, therefore, that the strategi and royal scribes were entitled to receive *σαλάρια*; but we do not know whether these salaries were more than sufficient to cover the necessary expenses of their offices, including the upkeep of their official residences etc.

There are several important points of contrast between these offices and the ordinary *λειτουργία*. (1) The procedure in their appointment must have been quite different. While the other local officials were appointed by the epistrategus, the strategi, and no doubt also the royal scribes, were appointed by the prefect; and since on appointment as strategus a man might be sent from the Heptanomia to the Delta or the Thebaid, or vice versa, the appointment could not have been made on the recommendation of the local officials or even of the epistrategus, and there could be no question of the pecuniary responsibility of those by whom the officials had been nominated. (2) For the ordinary liturgical offices the one indispensable qualification was the property qualification; if a man had the requisite *πόρος* it did not matter whether he was a Greek, Egyptian, or Jew. But for the offices of strategus and royal scribe, as for the municipal *ἀρχαί*, only Greeks were eligible — the citizens of the Greek cities and the honoratiore of the *μητροπόλεις*. I do not know whether the exemption of the *Ἀπτινοεῖς* from *λειτουργία* and *ἀρχαί* outside their own city would have applied to the *στρατηγία* (cf. the Geneva papyrus in Archiv III p. 371, where for *Ὁ[ξυρ]υγγ[ε]ίτην* I conjecture *δ[ντα] ἐγλο[μισ]τήν*). (3) For the ordinary liturgical offices the rule was that a man was liable to serve only

in his *idola* or in the place where he was a landowner (*γεωργος*). For the strategi and royal scribes this was certainly not a necessary qualification, whether or not I am right in supposing that it was actually a disqualification. (4) While the other local offices were regarded at first as a means of livelihood, afterwards merely as burdens, the offices of strategus and royal scribe were evidently regarded as honours, as appears from the fact that in inscriptions the strategus as well as the prefect and epistrategus is eponymous, and that the strategus like the municipal *ἀρχοντες* retained his title after laying down his office. It is possible that, as in the case of the municipal *ἀρχαί*, a time arrived when it was no longer possible to find suitable persons willing to accept office voluntarily, so that compulsion had to be resorted to, but we have hitherto no evidence as to whether this actually happened. In the 4th c., when the strategus had been replaced by the *ἐξάκιος*, we find in P. Brit. Mus. 233 a person who was willing even to incur what must have been a considerable expense in order to procure his appointment, but it is doubtful whether we can draw conclusions from this to the earlier period.

As we have seen that among the members of the local aristocracy at Oxyrhynchus there were several who had held office as strategi or royal scribes it may be hoped that the unpublished papyri from that site will bring us new evidence on these questions.

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By DE LACY O'LEARY, D. D.

Although the period covered is a long one the amount of published work is not proportionately large. Presumably the economic difficulties of the period following the war, and particularly the increased cost of book production, are mainly responsible for this. Several well known periodicals, such as the *Byzantinische Zeitschrift* have ceased or are indefinitely suspended, but against this several new periodicals appear. It is difficult to find out the exact facts about work done in Russia: the *Russian Review* states that research has been done in every branch of study but results are held up by the difficulty of procuring paper. In spite of every enquiry no evidence of work in Coptic has come to hand nor has it been possible to obtain any information as to such work.

In the following notes I am under great obligations to Mr. W. E. CAUM, without whose guidance and assistance the work would have been impossible, and also to Mr. H. G. EVELYN WHITE for information about work in the Wādī Natrān and for the opportunity of seeing manuscripts of a liturgical character from the Dēr Abū Makār. From others also I have received assistance for which I am deeply grateful.

I. Biblical.

The most important event in the progress of Coptic Biblical studies has been the appearance of two new volumes of HORNER's Sa'idic New Testament containing the Pauline Epistles with a register of fragments¹. These have been reviewed by Mgr. HERBELYNCK², and by LEIPOLDT who discusses the Sa'idic version generally and its place in textual criticism making only occasional reference to the Pauline Epistles³, as well as more briefly by a writer in *Bilychnis*⁴. Another volume, it is understood, will be published very soon. Mgr. HERBELYNCK has also compiled a conspectus of the Sa'idic manuscripts of the Pauline Epistles⁵. In addition to this work done on the epistles ENGELMACH has published "A fragment of the Gospel of St. Matthew in Coptic (Sahidic dialect)"⁶.

DIKU has published a study on the MSS. of the LXX books of Samuel. Though dealing with Greek manuscripts it is preparatory to a projected study of the Coptic text. He takes the Sa'idic as the best evidence as to the LXX text anterior to Origen and divides the texts varying from this type into two groups, the one a Syrian group whose peculiarities he ascribes to Lucian's revision, the other as one influenced by the critical work of Origen⁷.

H. MURIE in his "Mélanges de littérature copte" gives ten Biblical fragments, two in the material collected by Mr. Hoskyns, eight in that from Sheikh Abādeh (Antinoë, now in the Museum at Cairo⁸). A. VASCHALDE has compiled a bibliography of the printed editions of the Coptic bible and portions thereof, in each case tabulating the manuscript authorities which have been employed⁹.

¹ *Coptic Version of the New Testament in the Southern Dialect*, vol. IV, pp. viii + 456; vol. V, pp. 588. Oxford 1920.

² In *Rev. Bib.* xxx (1921) 278-279.

³ *C. Q. R.* xxi (1921) 33-68.

⁴ *Bilychnis* xv (1921) 251.

⁵ *Les manuscrits coptes sahidiques des épîtres de S. Paul* in *Muséon* xxxiv (1921) 3-15.

⁶ *Ann. Serv.* xxi (1921) 118-122.

⁷ DIEU, *Les manuscrits grecs des livres de Samuel* in *Muséon* xxxiv (1921) 17-60.

⁸ *Annal. Serv.* xix (1919) 225-241, and xxi (1921) 77-88.

⁹ VASCHALDE, *Ce qui a été publié des versions coptes de la bible* in *Rev. Bib.* (1919) 220-243; (1920) 91-106, 241-258; (1921) 237-246.

The papyrus which is catalogued as Brit. Mus. Or. 7594, containing Sa'idic portions of Deuteronomy, Jonah, and the Acts of the Apostles, the text published by BUDGE in his "Coptic Biblical Texts in the Dialect of Upper Egypt" (1912), and illustrated by a collation of the text and critical notes by Sir HERBERT THOMPSON in his "New Biblical Papyrus" (1913), has been made the subject of a study by Mgr. HERBELYNCK who enquires into the unity of the material contained in that papyrus and into its age¹. Amongst other reviews of work published before 1918 may be noted SPIEGELBERG's reviews of WESSELY's "Duodecim Proph. Minor. versionis Acheminicae codex Rainerianus" (1895)². Also J. SCHLEIFER's review of Sir HERBERT THOMPSON's "Coptic (Sahidic) Version of Certain Books of the Old Testament" (1908) which reproduces the text in the Brit. Museum described under heading No. 951 in CRAM's "Catalogue"³.

II. Apocrypha and Gnostic works.

Amongst apocryphal material the place of primary importance is held by the second century Akhminic text of the "Dialogues of Jesus with his apostles" of which an edition by C. SCHMIDT has appeared in the *Texte und Untersuchungen* of HARNACK and SCHMIDT⁴; it includes the Coptic text⁵, and also a comparison with the Ethiopic version for which Dr. J. WAJSBERG is responsible. It has been reviewed by BARDY⁶.

H. G. EVELYN WHITE has published a manual of the *Logia*⁷, which has received a very favourable review from A. VON HARNACK⁸ and from FERRIS⁹ as well as several unsigned reviews¹⁰. LAGRANGE also has contributed a study on one of the sayings in P. Oxy. 654¹¹.

U. MORICCA gives an account of a new text of the gospel of St. Bartholomew¹² which is a study based on the Greek text of MS. Sabbaitico 13 of the 10/11 cent. and the Latin cod. Vat. Reg. 1050 of the 9/10 cent., but this particular apocryphal work has Egyptian associations and there is a Coptic version in existence which will be illustrated by it¹³.

G. R. S. MEAD has brought out a new edition of his translation of the "Pistis Sophia" in which the whole has been very thoroughly revised and the introduction largely re-written¹⁴. F. C. BURKITT in an article suggested by this new edition of MEAD's book¹⁵ discusses the questions whether the "Pistis Sophia" is an original work or a translation and whether the writer uses the Sa'idic version of the Bible, but leaves the problem open. He surveys the general idea of *gnosis* and defines it as the wisdom which enables the soul to escape through the unfriendly spheres which surround this world by the use of the right pass-word. Gnosticism, as known to ecclesiastical history, was largely an attempt to reconcile the doctrine of a new hope for mankind with the philosophy current in the 2nd cent. The frankly magical side of syncretism is the subject of a monograph by TH. HOFFNER¹⁶. A new edition, revised and

¹ *L'unité et l'âge du papyrus copte biblique Or. 7594 du British Museum in Muséon* xxiv (1921) 71—80.

² In *Or. Lit. Zeit.* (1918) 22—29.

³ SCHLEIFER, *Bemerkungen zu Herbert Thompson's "The Coptic (Sahidic) version of certain books of the O. T."* in *Rev. Stud. Orient.* ix (1921) 183—187.

⁴ HARNACK und SCHMIDT: *Texte u. Untersuch.* XLIII. VII. SCHMIDT, C.: *Gespräche Jesu mit seinen Jüngern nach der Auferstehung, Akhminisch.* Leipzig 1919, vi + 731 + 83.*

⁵ On pp. 1*—26*.

⁶ In *Zeit. f. d. Neutest. Wissen.* ix (1921) 215—223.

⁷ H. G. EVELYN WHITE: *Sayings of Jesus from Oxyrhynchus.* Cambridge 1920, lxxvi + 48.

⁸ In *Theol. Lit. Zeit.* XLVI (1920) 4.

⁹ In *Phil. Woch.* (1921) cols. 325—326.

¹⁰ *Times Literary Suppl.* Oct. 21. 1920. — *Rev. Bib.* xxx (1921) 294—295. — *J. Hell. Stud.* xli (1921) 163.

¹¹ *Une des paroles attribuées à Jésus* in *Rev. Bib.* xxx (1921) 483—486.

¹² MORICCA: *Un nuovo testo dell' "Evangelo di Bartolomeo"* in *Rev. Bib.* xxx (1921) 481—516; xxxi (1922) 20—30.

¹³ Cf. *Journal* iv. 48.

¹⁴ MEAD: *Pistis Sophia; New and completely revised edition.* London, 1921, lxxix + 325.

¹⁵ BURKITT: *Pistis Sophia* in *JTS.* xxiii (1922) 271—280.

¹⁶ HOFFNER: *Griechisch-ägyptischer Offenbarungszauber* (Weissely Studien no. xxi). Vienna 1921, iv, 265.

considerably augmented, is announced of DE FAYE's "Gnostiques et Gnosticisme," of which part III. deals with Coptic Gnostic writings¹. W. E. CRUM describes the fragment Brit. Mus. Or. 6201 c. which appears to be a Manichaean fragment from Egypt written in the peculiar script affected by the followers of Mani of which examples have hitherto generally come from central Asia; none have been previously found in Egypt².

An apocryphal episode of the Passion, dealing with the treason of Judas, will be found in MURIN's "Mélanges de littérature copte"³.

III. Liturgical.

An important contribution to the study of the Coptic Euchologium has been made by LIETZMANN's account of a Sa'idic fragment of the 9/10th cent. (Vatican Cod. Borg. cix) containing portions of the liturgies of S. Gregory and S. Cyril⁴. POCAON describes a Bohairic MS. in the library of the Institut Catholique at Paris which gives the Anaphora of S. Cyril with two passages not in the Latin version of Renaudot⁵. In MURIN's "Mélanges de littérature copte"⁶ occur two fragments of liturgical bearing, the one a directory of lessons, the other a portion of a Sa'idic anaphora of the type used in Upper Egypt before the time of the patriarch Gabriel ibn Tarik.

Of earlier work reviewed within the period under consideration attention may be given to RENDTORFF's review⁷ of MAX DE SAXE's "Praelectiones de liturgiis orientalibus" which appeared in 1913.

The Ethiopic texts of the Anaphora have close relations with the Coptic forms and S. A. MERCER has published a series of translations which supplement his "Ethiopic Liturgy" of 1915. The first of these "The Anaphora of our Lord" appeared before 1918 but may be mentioned here to complete the series⁸. This was followed by translations of "the Anaphora of St. Dioscorus"⁹, "the Anaphora of our Lady Mary"¹⁰, "the Anaphora of St. John Chrysostom"¹¹ and that of "the Holy and Blessed John . . . Son of Thunder"¹². Of the "Anaphora of our Lady Mary" a text is also published by ECKINGER from the *editio princeps* of 1548¹³.

The Paschal ceremonies, and more especially the preparation and consecration of the Chrism and the oil of the catechumens on Maunday Thursday are illustrated by VILLECOUR's treatise on the Holy Chrism in the Coptic Church on the authority of the MS. arabe 100 in the Bib. Nationale¹⁴. Very valuable information on those ceremonies as observed in the 4th cent. is given by HENGSTENBERG in his notes on the visit of the Abbot Horsiesius to Alexandria when these ceremonies were being celebrated¹⁵.

An important contribution to the study of the Theotokia is made by BAUMSTARK who traces the transmission of the Theotokia forms, with particular attention to the section $\chi\epsilon\rho\epsilon \text{ } \dagger\text{MACHOY}\dagger$ $\rho\omicron\epsilon\alpha\eta\alpha$. . . which appears as the third division of the Tuesday Theotokia, and argues a relation between the text at the basis, which he illustrates from a 6th cent. papyrus in the British Museum (cf. Kenyon-Bell *Gk. Papyri in Brit. Mus.* III. Lond. [1907] 284 f.) and the form used in the Milanese rite¹⁶.

¹ Pub. Paul Geuthner, Paris.

² CRUM: "Manichaean" fragment from Egypt in *J. R. Asiat. Soc.* (1919) 207-208.

³ In *Ann. Serv.* XXI (1921) 77-88.

⁴ LIETZMANN: *Sahidische Bruchstücke der Gregorians und Kyrrillos-Liturgie* in *OC.* (1920) 1-19.

⁵ Notice sur le manuscrit copte-arabe no. 2 de l'Inst. Catholique de Paris in *ROC.* XXI (1918/19) 241-245.

⁶ *Ann. Serv.* XIX (1919) 224-241; XXI (1921) 77-88.

⁷ In *Theol. Lit. Zeit.* XIV (1920) 2-10.

⁸ *Journal of Soc. of Oriental Research*, Chicago, I (1917) 24-40.

⁹ Id. II (1918) 83-86.

¹⁰ Id. III (1919) 51-64.

¹¹ Id. IV (1920) 35-42.

¹² Id. VI (1922) 21-33.

¹³ In *Der Katholik* XIV 241 sqq.

¹⁴ *RHE* XVII (1921) 501-514, also pub. separately, Louvain 1922, pp. 30.

¹⁵ HENGSTENBERG: *Pachomiana, mit einem Anhang über die Liturgie von Alexandrien*, in *Beiträge zur Gesch. des christl. Altertums und der byzant. Literatur*; Festgabe Albert Ehrhard, Bonn 1922, 228-252.

¹⁶ BAUMSTARK: Ein frühchristliches Theotokia in mehrsprachiger Überlieferung und verwandte Texte des Ambrosianischen Ritus in *OC.* (1920) 33-61; reviewed in *Theol. Rev.* (1921) cols. 303-304.

The Coptic MSS. obtained from Der Abu Makar, by Mr. H. G. EVELYN WHITE and the expedition of the New York Metropolitan Museum manuscripts, which are now transferred to the Coptic Museum in Cairo, contain various fragments of the Theotokia, for the most part similar in type to the Bib. Nat. Copte 22 (cf. Bodl. Huntington 256), differing a good deal from the printed texts, but with a considerable amount of fresh material in the form of new doxologies and paraphrases. An edition of the Theotokia text including matter not in Tuki or the Cairo editions, is in preparation by D. O'LEARY.

The kindred Ethiopic Theotokia receives treatment from GROHMANN who incidentally gives a considerable amount of attention to the Coptic forms¹; his work has been reviewed by PRAETORIUS² and by BROCKELMANN³. ENGELBACH has given the description of an alphabetic hymn in Bohairic⁴.

Important material for the study of the Coptic as well as of the Ethiopic Psalmodia and other choir books will be found in WELLESZ's studies in Ethiopic Church Music⁵. The writer gives the equivalents to the modes HXOC AAM, HXOC BATOC etc. (the Coptic names are used) in modern notation, but carefully avoids the introduction of modern European notions of harmony and strict time which are entirely alien to oriental and mediæval music and radically distort its form. Unfortunately such alien influences are now being partially introduced by the "young Copt" party who do not appear to be aware of the work done in Europe in mediæval music, so that a treatment of Ethiopic, and incidentally of Coptic church music by one in touch with these researches is peculiarly important at the present moment.

Two new volumes have appeared of R. BASSET's text and translation of the Arabic-Jacobite Synaxarium, one giving the months Toubeh and Amsehir⁶; the other, containing the months of Barmahat, Barmoudah, and Pachous, has just appeared⁷. S. GRÉBAUT has published some fragmentary Ethiopic menologies⁸ in which he compares the Ethiopic menology with that of the Coptic rite.

In MUXER's "Mélanges de littérature copte"⁹ occur fragments of a directory of lessons and of a Sa'idic anaphora of the type used in Upper Egypt before the time of the Patriarch Gabriel b. Tarik.

IV. Church Literature.

No fresh material has appeared dealing with the "Egyptian Church Order," but HARDEN has issued an English translation of the allied Ethiopic Didascalia¹⁰. The "So-called Egyptian Church Order" of Dom CONOLLY, which appeared in 1916, has been reviewed by B. MONCEAUX¹¹, by G. MOHLBERG¹², by A. von HARNACK¹³, by FIBIG¹⁴ and by P. ALFARIC¹⁵. GUÉRIER gives the Ethiopic text of certain penitential canons which seem to have an indirect bearing on Coptic canon law¹⁶.

¹ GROHMANN: *Äthiopische Marienhymnen*, Leipzig 1919, xii + 507.

² In *Deutsch. Lit. Zeit.* xiii (1921) cols. 322—324.

³ *Lit. Zentralb.* (1921) cols. 683—684.

⁴ *Alphabetic hymn in Coptic (Boheric)* in *Ann. Serv.* xxi (1921) 110—117.

⁵ WELLESZ: *Studien zur äthiopischen Kirchenmusik* in *OC.* ix (1920) 74—106, with four reproductions of pages containing musical notation.

⁶ BASSET: *Le synaxaire arabe-jacobite; mois de Toubeh et d'Amsehir*. P. O. XI, v, Paris N. D. (1920) 507/859 [415—825].

⁷ BASSET: *Le synaxaire arabe-jacobite; mois de Barmahat, de Barmoudah, et de Pachous*. P. O. XVI, ii, Paris (1922) 187—424 [823—1066].

⁸ GRÉBAUT: *Un fragment de ménologie éthiopien* in *ROC.* xxii (1920/21) 95/99; and *Quelques ménologies éthiop.* id. 100—108.

⁹ *Ann. Serv.* xix (1919) 224—241; xxi (1921) 77—88.

¹⁰ HARDEN: *The Ethiopic Didascalia*, London 1920, 224.

¹¹ *Journ. des Savants* (1919) 102—103.

¹² *Theol. Rev.* (1920) 134—138.

¹³ *Theol. Lit. Zeit.* xlvi (1920) col. 225.

¹⁴ *Phil. Woch.* (1921) cols. 325—326.

¹⁵ *Rev. Hist. Relig.* lxxix (1919) 111—112.

¹⁶ *Canons pénitentiels* in *ROC.* xxi (1918/19) 5—24, 345—355.

G. GHEZZI discusses the suggestion thrown out by H. I. BELL¹ that the papyrus signed by a certain Antony is an autograph of the great St. Antony². Homiletic passages, one from S. Ephraim Syrus, occur in S. G. MERCATI's "Note papirologiche".

The study of the "Apophthegmata Patrum" receives an important contribution in HOFFNER's monograph on the Sa'idic text of the sayings and the derived Greek, Latin, Bohairic, and Syriac versions³ with which must be associated another essay by the same writer on the forms etc. of the Greek loan words in the Sa'idic text⁴. The late BOUSSIER in a presentation volume in honour of Prof. Harnack contributes a survey of work done on the Apophthegmata with suggestions as to problems needing attention⁵.

The rule of St. Pakhom is treated by LEFORT in an essay on the original Coptic text of the rule, of which he has discovered fragments agreeing literally with the Latin text of S. Jerome, and proving that the Greek text is simply an abridged translation⁶; this was followed two years later by a contribution in which he explains the grounds for reaching this conclusion⁷. The former has been reviewed by the Dominican Father SCHAFF⁸ and anonymously in the *Revue d'ascétique et de mystique*⁹. LEFORT has been engaged on an edition of the Coptic text of the life of S. Pakhom which will appear shortly in the *Corpus Script. Chr. Orient.*

W. HENGSTENBERG has published a study on the teaching of St. Pakhom and on the monastic life of the Pakhomian community in the 4th cent., mainly based on the Cheltenham papyrus which contains an account of the sayings and correspondence of the Supreme Abbot Horsiesius¹⁰.

Since the appearance of Abbot BUTLER's "Lausiac History" in 1904 considerable progress has been made in the study of Palladius and associated literature, both by the discovery of fresh material and by the independent work of Reitzenstein, Bousset, and others: this is surveyed by Abbot BUTLER in "Palladiana," a series of essays contributed to the JTS. which have also been published in separate form¹¹. These contributions deal with (1) the text of the Lausiac History, (2) the authorship of the dialogue *de Vita Chrysostomi* and the Lausiac History, and (3) the questions of history involved. The work already done by REITZENSTEIN in this field, namely the "Historia Monachorum und Historia Lausiacae" published in 1916 (cf. *Journal*, v. 207) is the subject of reviews by PAUL ETARD¹², by K. BETH¹³ and by a writer in the *Revue Benedictine*¹⁴.

The works which pass under the name of Macarius the Great have received a good deal of attention during our period. G. L. MARRIOTT's *Macarii Anecdota* (1918) has been reviewed by LIETZMANN¹⁵ and MARRIOTT has followed with a series of contributions to the JTS. on "the epistle 'ad filios Dei'"; "on

¹ In *Pap. Lond.*, vol. v, p. 18, no. 1658: cf. *Journal* v, 207.

² Una lettera autografa di S. Antonio abate? in *Scuola Cattolica* (Milano) 1920, 247—250.

³ In *Biblica* (1920) 270—271, 371—375. The passages are. (i) *Il testo del P. Lond.* 113, 12/a. (ii) *Nota ai vv. 9—13 dell'omelia εἰς τὴν χρ. γένεσιν*. (iii) *Frammenti dell'omelia εἰς τὸν πύγκλον Ἰωσήφ δι S. Efreim Siro*.

⁴ HOFFNER: Über die koptisch-sa'idischen Apophthegmata Patrum Aegypti. und verwandte griech., latin., kopt.-boh. und syrische Sammlungen in *Kaiserl. Ak. d. Wissensch., Phil.-Hist. Klasse* 61/2. (1918) vi + 109.

⁵ Cf. in (7) below.

⁶ Die Textüberlieferung der Apoph. Patr. in *Festschrift für A. von Harnack*, Tübingen 1921, 102—116.

⁷ LEFORT: Un texte original de la règle de S. Pachôme in *Compt. Rend. de l'Acad. des Inscr. et B. L.* (1919) 341—348: also pub. sep. Paris 1919, 8.

⁸ LEFORT: La règle de S. Pachôme in *Muséon* xxxiv (1921) 61—70.

⁹ In *Rev. des Sci. Relig. et Théol.* (1921) 482—486.

¹⁰ (1920) 406.

¹¹ HENGSTENBERG, W.: *Pachomiana, etc.* — cf. above. For the Cheltenham papyrus cf. CRUM: *Der Papyrus-codex saec. VI—VII der Phillipsbibliothek in Cheltenham* (Koptische theologische Schriften, herausgegeben und übersetzt). Mit einem Beitrag von A. Ehrhard, Straßburg 1915.

¹² BUTLER: Palladiana in *JTS.* xxii (1920) 21—35, 138—155, 222—238: also sep. pub.

¹³ In *Rev. d'hist. et de litt. relig.* (1920) 563—565.

¹⁴ *Z. f. Kirch.-Gesch.* xxxviii (1920) 388—390.

¹⁵ *Rev. Ben.* xxxiii (1920) 228*—229*.

¹⁶ *Theol. Lit.-Zeit.* xlvii 32 sq.

¹⁷ *JTS.* xi (1919) 42—44.

Isaac of Niniveh and the writings of Macarius of Egypt¹, "Gennadius of Marseille on Macarius of Egypt²," and "on the authorship of a Homily attributed to Macarius of Egypt³," to which A. J. MASON added a note on Macarius⁴. BAUMSTARK has edited a Syriac version of the epistle "ad filios Dei⁵."

Meanwhile extremely important work was being done by the two Benedictine scholars DOM VILLECOURT and DOM WILMART. Of this the first result appeared in VILLECOURT's essay on the spiritual homilies of Macarius circulated in Arabic and ascribed to Simeon Stylites⁶, followed by WILMART's study on the treatise on asceticism attributed to St. Gregory of Nyssa in which he showed that the document belonged to the curious group of treatises which may be termed "Macarian⁷" and then by the same writer's essay on the "Spiritual letter of Macarius⁸." VILLECOURT then summed up his conclusions that the so-called homilies of St. Macarius are the work of a Messalian writer, probably Mesopotamian, and were produced before the condemnation of the Messalian heresy, perhaps in the latter part of the fourth century⁹; this was reviewed by MARRIOTT¹⁰. VILLECOURT's conclusions were then worked out more fully, but on the same general lines, by WILMART¹¹. To these VILLECOURT added an essay on the textual form and literary environment of the longer Greek letter bearing the name of Macarius¹². On quite different lines PACHU writes on the mystical experience of Macarius¹³. In "Origenes und Hieronymus" REITZENSTEIN discusses P. Oxy. 1601 and comes to the conclusion that the passage given in that document is probably from Origen and is certainly utilised by St. Jerome in his commentary on Joel¹⁴.

On doctrinal and philosophical questions we find in DE FAYE's essay on the originality of the Christian philosophy of Clement of Alexandria an interesting contribution to the history of philosophical thought and the teaching of Clement, but one with only slight bearing on the life or thought of the Coptic Church¹⁵. TOURNERIZE publishes a paper on the Immaculate Conception as viewed by the ancient Eastern Churches, the Greek, Armenian, Coptic, and Syrian, reaching the conclusion that, though no direct proof of the acceptance of this doctrine can be found in the formularies or writings of the recognised theologians of those churches, yet they celebrate "non pas la miraculeuse fécondité d'une femme stérile, mais bien l'exceptionnelle pureté de la reine des anges¹⁶."

W. R. DAWSON has written an essay on the literature of the early Coptic Church¹⁷.

Of reviews of earlier work of a general character we have CURRY's review of BUDGE's "Miscellaneous Texts in the Dialect of Upper Egypt¹⁸."

¹ Id. 345-347.

² Id. 347-349.

³ Id. xxi (1919/20) 177-266.

⁴ Id. 266.

⁵ In *OC*. ix (1920) 130-132.

⁶ *Homélies spirituelles de Macaire en Arabe sous le nom de Siméon stylite* in *ROC*. xxi (1918/19) 337-344.

⁷ WILMART: *La tradition de l'hypotypose ou traité de l'ascèse attribué à St. Grégoire de Nyssa* in *ROC*. xxi (1918/19) 412-421.

⁸ WILMART: *La lettre spirituelle de l'abbé Macaire* in *Rev. d'ascét. et de mystique* i (1920) 58 sqq.

⁹ VILLECOURT: *La date et l'origine des homélies spirituelles attribuées à Macaire* in *Comptes Rend. Acad. Inscr. et B. L.* (1920), 250-257; also pub. sep. Paris, 1920.

¹⁰ *ITS*. xxii (1921) 259-262.

¹¹ WILMART: *L'origine véritable des homélies pneumatiques* in *Rev. d'ascét. et de mystique* i (1920); also pub. sep. Toulouse-Paris, N. D.

¹² *La grande lettre grecque de Macaire, ses formes textuelles et son milieu littéraire* in *ROC*. xxii (1920/21) 29-56; also pub. sep. Paris, N. D.

¹³ *L'expérience mystique de Macaire l'Égyptien* in *Rev. de philos.* xx 109-136.

¹⁴ REITZENSTEIN, *Origenes und Hieronymus* in *Z. f. d. Neutest. Wissen* xx (1921) 90-130.

¹⁵ DE FAYE, *Originalité de la philosophie chrétienne de Clément d'Alexandrie* in *Ann. de l'École des Hautes Études*, section sci.-relig., 1919/20.

¹⁶ *L'immaculée conception dans les anciennes églises orientales* in *ROC*. xxi (1918/19) 173-181.

¹⁷ *Early Christianity in Egypt: The literature of the Coptic period* in *Asiatic Rev.* xvii (1921) 342-351.

¹⁸ In *J. R. Asiat. Soc.* (1919) 283-285.

V. History.

Of material subsidiary to the study of history the most important appears in (the late) J. MASPERO and G. WIER's second fasciculus of the first series of "Materials to serve for the geography of Egypt" of which the first fasciculus appeared in 1914. This new number continues and completes the list of towns cited in the *Khitat* of Maqrizi, from "Tammou" onwards. The list, which is on the same lines as its predecessor, is followed by indices of the geographical names, of the historical references, of other words cited in the very ample commentary, and by a chronological table¹. It has been reviewed by HUART² and in the *Journal des Savants*³.

Before his death J. MASPERO had in preparation an important history of Egypt during the century immediately preceding the Muslim conquest, specially concerned with the condition of the Coptic Church, the intervention of Syrian ecclesiastics in Egypt, and the events of the patriarchate of Damianus. His papers are now in the hands of Dr. ADRIAN FORTESCUE and the work, whose title is not yet definitely fixed, will be published in due course.

In the field of martyrria D. P. BUCKLE publishes "The forty Martyrs of Sebaste" which he describes as "a study in hagiographic development," and gives reproductions of a Coptic MS. in the John Rylands Library (No. 94 in the Catalogue). The martyrs in question are those whose history is related in vol. II of the Bollandist *Acta SS.* for March, and are frequently commemorated in Coptic *doxologia*⁴. P. G. SORBY publishes "Le martyre de saint Hélias et Pencomium de l'évêque Stephanos de Hnès sur saint Hélias" the first of a series of Coptic texts commenced at Cairo in connection with the Coptic Museum where a collection of manuscripts is in process of formation⁵. It has been reviewed by P. P. KUTNER⁶.

H. QUENTIN and E. TISSERANT have published a Syriac version of the passion of St. Dioscorus who suffered in Egypt in 370⁷.

S. GRÉBAUT has edited an Ethiopic text of the story of the martyrs of Akhmim⁸, whilst CHASSINAT publishes the Coptic text of a fragment of the *Acta* of Apa Nahroou⁹, the only Coptic acts which relate the passion of an Egyptian martyr who suffered in a foreign land. The text is a fragment in four folios; another folio in the Cairo Museum having been published previously by BOURIANT¹⁰.

K. SETHE has written a note on the acts of the Apa Schnube¹¹.

PAUL PEETERS examines the several words employed in various oriental languages to represent the term "martyr"¹², one section dealing with the rendering in Coptic¹³. The whole article forms an appendix to an essay by DELAHAYE on "Martyr et Confesseur"¹⁴.

FURLANI has published the Syriac texts dealing with the lives of John of Alexandria and John Philoponus, a publication which I have not been able to see¹⁵.

Two volumes have appeared of E. MEYER's "Ursprung und Anfänge des Christentums" and a third is to follow. These two contain some references to Egypt and to its pre-Christian religion¹⁶.

¹ MASPERO and WIER: *Matériaux pour servir à la géographie de l'Égypte*, Instit. Fr. d'Arch. Or. du Caire 1^{re} série, 2^{me} fasc., 1919, VII+282.

² *Journ. Asiat.* XVI (1920) 343-345.

³ *J. Sav.* (1920) 49.

⁴ *Bulletin of the John Rylands Library*, VI, July 1921, pp. 352 sqq. Reprinted for private circulation, Manchester, 1921.

⁵ *Bibl. d'études coptes*, Le Caire (1919) tom. I, pp. VIII-123.

⁶ *Anal. Bolland.* XXXIX (1921) 369-370.

⁷ *Une version syriaque de la passion de S. Dioscore* in *Anal. Bolland.* XXXIX (1921) 333-344.

⁸ *La mort des martyrs d'Akhmim* in *ROC.* XXI (1918/19) 92-93, 182-189.

⁹ *Recueil* XXXIX (1920) 95-96.

¹⁰ cf. *Recueil* IV 153-154.

¹¹ SETHE: *Zu den Märtyrakten des Apa Schnube* in *Zeitschr. f. Äg. Spr.* (1922) 139-140.

¹² *Anal. Bolland.* XXXIX (1921) 50-64.

¹³ p. 54.

¹⁴ *Id.* 20-49.

¹⁵ In *Real Acad. Torino*, vol. LV (1919/20) p. 188 sqq.

¹⁶ MEYER: *Ursprung und Anfänge des Christentums*, 1921, vol. I, VII and 462, vol. II, X and 340.

MÉAUTIS writes an account of the early history of Christianity in Egypt which he regards as practically a pagan country until well into the third century¹. HECKEL surveys the history of the Alexandrian Church in the ante-Nicene period and discusses the evidence regarding the date of the introduction of Christianity into Egypt, coming to very much the same conclusion as MÉAUTIS².

HAASE's work on the Coptic material dealing with the Nicene Council contains a critical examination of the canons, creed etc.³ It has been reviewed by FR. DIEKAMP⁴ and by C. SCHMIDT⁵.

On later periods of Coptic Church History we have B. CATTAN's "La Chiesa Copta nel secolo XVIII documenti inediti"⁶.

A. A. LUCE has produced a popular history and description of the Monophysite churches⁷.

A pamphlet by T. D. MOSCONAS⁸ contains a summary of addresses given to the Y. M. C. A. at Manchester and other bodies; the first of these is by way of a tract aiming to prove that the Greek and not the Coptic patriarch of Alexandria is the valid occupant of the see; another describes the settlement of some Greek orthodox refugees in Abyssinia in the 18th cent.

A good general account of the early history of monasticism in Egypt appears in a paper by W. J. FERRAR⁹ and in a popular manual by MACKEAN¹⁰; GOSILLOT writes more particularly on the origin of Egyptian monasticism and its relation to pre-Christian cults¹¹. On the *xatoxi* problem¹² we have an important contribution by SETHE¹³.

DOM VILLECOURT's treatise on the Holy Chrism¹⁴ based on the MS. arabe 100 of the Bib. Nat., which was the text used by VASSLER in 1672 as the primary source of his "Histoire de l'église d'Alexandrie," contains incidentally a considerable amount of information about the sees and monasteries of Egypt.

MUSIER's "Mélanges de littérature copte" contains two fragments of saints' lives, one of St. Pakhom, as well as a Coptic version of the canons of St. Athanasius¹⁵.

Amongst reviews of previous work must be noted Mgr. HERBELYCK's article on VAN CAUWENBERG's "Etudes sur les moines d'Egypte" which appeared in 1914¹⁶.

In a new volume of the *Patrologia Orientalis* M. H. DAVIS gives the Coptic text with translation of the life of Abba John Khamé from the Vatican Codex Copt. IX¹⁷. The life differs in several details from the shorter biography given in the *Synaxarium* for Khoiak 25th. In the introduction H. G. EVELYN WHITE contributes a chronological note in which he places the life of Abba John between 700 and 850 A. D. Mr. EVELYN WHITE has been kind enough to supply me with a note adding some more accurate information to this estimate. He refers to "a marble slab now in the Church at Dêr es Suriân. This has a long Coptic inscription recording the death of Khamé (spelt KAME) on the night of Khoiak 24th—25th in A. Mart. 575 (859 A. D.), and the death on Athor 9th in the same year of Papa Stephanos, his spiritual son." DAVIS' edition has been reviewed by GUIDI¹⁸.

¹ MÉAUTIS: *L'Introduction du Christianisme en Égypte* in *Rev. de Theol. et de Phil.* (1921) 169—185.

² HECKEL: *Die Kirche von Ägypten, ihre Anfänge, ihre Organisation und ihre Entwicklung zur Zeit des Nicänens*, Straßburg, 1918, vii+85.

³ HAASE: *Die koptischen Quellen zum Konzil von Nicäa*, Paderborn, 1920, pp. 123.

⁴ *Theol. Rev.* (1920) 123.

⁵ *Z. f. Kirch.-Gesch.* XXIX (1921) 100.

⁶ In *Bessarione* XXII (1918) 133—161.

⁷ LUCE: *Monophysitism past and present*, London, 1920, pp. 148.

⁸ MOSCONAS: *Analecta. The holy and apostolic Church of Alexandria. The Greek pilgrim Fathers*, Manchester, 1920, pp. 40.

⁹ In *CQR.* LXXXIX (1920) 233—246.

¹⁰ MACKEAN: *Christian Monasticism in Egypt to the Close of the Fourth Century*, London, 1920, pp. 154.

¹¹ *Les origines du monachisme chrétien et l'ancienne religion de l'Égypte* in *Recherches de science relig.* (1920) 303—354, (1921) 168—213.

¹² cf. *Journal* v 208.

¹³ SETHE: *Ein bisher unbeachtetes Dokument zur Frage nach dem Wesen der xatoxi im Serapeum von Memphis* in *Papyrusinstitut Heidelberg*, Schrift 2, Berlin und Leipzig, 1921, pp. 65—78.

¹⁴ cf. sect. 3 above.

¹⁵ In *Annales du Serv.* XIX (1919) 225—241.

¹⁶ *RHE.* XVII (1921) 133—161.

¹⁷ DAVIS: *Abba John Khamé* in *Patr. Or.* XIV, II (1919) 317—372.

¹⁸ *Riv. Stud. Orient.* VIII (1919) 169.

BLANCHARD writes some brief "notes on Egyptian saints"¹ which have been reviewed in "Ancient Egypt"² in which he connects the observances at certain church festivals with pre-Christian fertility charms: and G. A. BARTON includes a few remarks about Egyptian and Abyssinian saints in his article "Saints and Martyrs (Semitic and Egyptian)" contributed to HASTINGS "Encyclopædia of Religion and Ethics".

BUDGE's translation of the *Kebra Nagast*³ contains a version of the Ethiopic text and also a translation of the Arabic version printed by Bezold in 1909 of which a French translation appears in AMÉLINEAU's "Contes et Romans"⁴ together with a critical introduction. The colophon of the manuscript used states that the work was translated from the Coptic. This statement was rejected by DILLMANN and ZOTENBERG, but Dr. BUDGE is convinced that it is substantially correct and "that it is quite possible that in its original form the Arabic version of the book was translated from Coptic MSS. belonging to the Patriarchal Library at Alexandria, and copies of this Arabic translation, probably enlarged and greatly supplemented by the scribes in the various monasteries of Egypt, would soon find their way into Ethiopia or Abyssinia, via the Blue Nile". A review has appeared in the *Times Literary Supplement*⁵ in which the writer questions Sir ERNEST BUDGE's suggestion that the manuscript source is of the 6th century as it makes reference to Kahira (Cairo) which was not founded until 968, but admits the possibility that the Coptic original may be of the 6th cent.

L. ECKENSTEIN has published a history of Sinai which has, however, only a remote bearing upon the history of the Coptic Church or Coptic monasticism as the monastic life on Sinai was predominantly Greek*. In this one chapter (x) deals with "the hermits in Sinai," another (xi) with "the writings of the hermits" (xii), describes the convent, and six chapters (xiii-xviii) relate its history from the Muslim conquest to the present day.

VI. Non-literary texts.

GUIDI has prepared a bulletin of Coptic bibliography⁶. HYVERNAT has published a catalogue of the Coptic MSS. in the Pierpoint-Morgan Library⁷, and this list has been reviewed in the *Revue Biblique*⁸ whilst DELAHAYE has made a catalogue of the Greek hagiographa in the Patriarchal Library in Cairo⁹.

W. E. CRUM has published a catalogue of "New Coptic Manuscripts in the John Rylands Library"¹⁰.

Of shorter texts the most important collection appears in CRUM's "Short Texts from Coptic Ostraca and Papyri"¹¹. This contains texts only without translations, 450 in all, of which 50 are from papyri: some of these¹² are Biblical, others liturgical¹³, others extracts from homilies¹⁴, whilst the remainder are almost exclusively from correspondence between members of various monastic communities. The book has been reviewed by Sir HERBERT THOMPSON¹⁵, and in the *Bollandist "Analecta"*¹⁶. Some Coptic ostraca also

¹ *Notes on Egyptian Saints in Harvard African Studies* VIII (1919) 189-192.

² *Anc. Egypt* (1921) 53.

³ HASTINGS: *Encyc. Rel. and Ethics*, vol. XI (1920) 73-78.

⁴ BUDGE: *The Queen of Sheba*, London, 1922, xc+241.

⁵ AMÉLINEAU: *Contes et Romans* (1888), vol. I, pp. 144 sqq.

⁶ BUDGE: *The Queen of Sheba*, p. xxxi.

⁷ *Times Lit. Suppl.* June 1, 1922, p. 360.

⁸ ECKENSTEIN: *History of Sinai*, London, 1921, pp. 202.

⁹ *Bollettino bibliografico: Copte in Riv. Stud. Orient.* VIII (1919) 012.

¹⁰ HYVERNAT: *A Check List of Coptic MSS. in the Pierpoint-Morgan Library*, privately printed, New York, 1919, xviii+21, with 5 illustrations.

¹¹ *Rev. Bib.* XXIX (1920) 447-448.

¹² *Catalogus codicum hagiographicorum graecorum bibliothecae patriarchatus Alexandrini in Cahira Aegypti in Anal. Bolland.* XXXII (1921) 345-357.

¹³ Aberdeen, 1920, p. 7.

¹⁴ CRUM: *Short Texts from Coptic Ostraca and Papyri*, Oxford, 1921, xii+150, lithogr.

¹⁵ i. e. nos. 1-14, 406-410.

¹⁶ Nos. 15-28.

¹⁷ Nos. 29-36.

¹⁸ *Journal* VII (1921) 229.

¹⁹ *Anal. Bolland.* (1921) 378-379

are published by ENGELBACH¹, and A. E. R. BOAK has made a transcript of various Greek and Coptic school tablets now in the University of Michigan².

Turning to legal documents and contracts the leading work is by STEINWENTER who has commenced a study of the Coptic material illustrating the administration of the Roman law amongst the Copts of Upper Egypt³, and this has been reviewed by ARANGO-RUIZ⁴. MÖLLER gives the text and translation of a Coptic (Sa'idic) marriage contract in Berlin Mus. Pap. 11348⁵.

CHASSINAT has published a medical papyrus⁶. The text is from a MS. of the 9th—10th cent. A. D. It is not a treatise on medicine but a collection of prescriptions, 237 in number, which contain some items in a cryptic alphabet resembling that used by Byzantine writers and already known, at least in part, from other sources. The editor has made a careful analysis (pp. 21—47) of the system used in the transcription of Arabic words in Coptic and vice versa, which gives the book a philological value. Each prescription is transcribed, translated, and illustrated by a commentary. There are six indices. It is understood that CHASSINAT is at present at work on a medical papyrus in the Bodleian. MURIER also has published two medical prescriptions in Coptic⁷.

MEYER's "Juristische Papyri" is an introduction to the study of juristic material in the papyri⁸. It has been reviewed by H. I. BELL⁹, by A. BERGER¹⁰, by H. NIEDREMEYER¹¹, by E. WEISS¹², by M. GELZER¹³, and in the *Journal of Hellenic Studies*¹⁴.

Amongst reviews of earlier work may be cited VAN CAUWENBERGH's review of GRIFFITH's "Nubian Texts of the Christian Period" which appeared in 1913¹⁵, GELZER's review of SPIEGELBERG's "Ein koptischer Vertrag"¹⁶ and VAN CAUWENBERGH's review of CHEN's "Theological Texts from Coptic Papyri"¹⁷.

VII. Philological.

Here SPIEGELBERG's Coptic Dictionary¹⁸ which has been reviewed by CHEN in this *Journal*¹⁹, takes the primary place. SPIEGELBERG has also published a study in Coptic etymologies²⁰. This contains 41 etymological studies, including causative formative TO (no. 8) from ⲧ "give" (cf. SETHE's monograph below), and other words, not loan-words, with two indices. He has also contributed various notes, on ⲕⲏ, ⲕⲁⲱⲧ, ⲕⲉⲗ, ⲕⲁⲱⲱ and ⲕⲁⲱⲱⲙ (ⲕⲁⲱⲱⲙ) to the *Zeitschr. f. Äg. Sprache*²¹. Grammatical and etymological notes also appear by WIESMANN in the same periodical²², and by MÖLLER²³.

¹ *Ann. Serv.* XXI (1921) 123—125.

² BOAK: *Greek and Coptic School Tablets at the University of Michigan* in *Class. Phil.* XVI (1921) 189—194.

³ STEINWENTER: *Studien zu den koptischen Rechtsurkunden aus Oberägypten*, Leipzig, 1920, II+79.

⁴ *Aegyptus* I (1920) 282—286.

⁵ MÖLLER: *Ein koptischer Ehevertrag* in *Zeitschr. f. Äg. Spr.* IV (1918) 67—74.

⁶ CHASSINAT: *Un papyrus médical copte*. Inst. Franç. du Caire, 1921, xv+393, table and 20 plates.

⁷ *Deux recettes médicales coptes* in *Ann. Serv.* XVIII (1919) 284—286.

⁸ MEYER: *Juristische Papyri. Erklärung von Urkunden zur Einführung in die juristische Papyriwissenschaft*, Berlin, 1920, xx+380.

⁹ *Journal* (1921) 112.

¹⁰ *Z. f. vergl. Rechtswiss.* XXXIX, I/II, p. 296.

¹¹ *Byz. Neogr. Jahrb.* II 220.

¹² *Lit. Zeit.* 51/52, 595.

¹³ *Hist. Zeitschr.* CXXIII (1919) 156.

¹⁴ *J. Hell. Stud.* (1920) 213.

¹⁵ *RHE.* XVII (1921) 116—118.

¹⁶ *Hist. Zeitschr.* CXXIV (1920) 121.

¹⁷ *RHE.* XVII (or XVI, confusion in numbering) (1921) 115—116.

¹⁸ SPIEGELBERG: *Koptisches Handwörterbuch*, Heidelberg, 1921, xvi+339.

¹⁹ *Journal* VIII, 116—119.

²⁰ SPIEGELBERG: *Koptische Etymologien. Sitzungsber. d. Heidelb. Akad. d. Wissensch., Phil.-Hist. Kl.* 1919, Heidelberg, 1920, p. 63, facsim. of demot. Pap. Heidelb. 1289.

²¹ *Koptische Kleinigkeiten* in *Zeitschr. f. Äg. Spr.* (1918) 131—135.

²² *Miszellen* in *Zeitschr. f. Äg. Spr.* (1920) 99—100. On HEAT = ⲧⲏ ⲙⲉⲣⲁⲧⲁ, ⲧⲏⲱⲱⲧⲉ and ⲧⲏⲱⲱⲧⲉ.

²³ *Zeitschr. f. Äg. Spr.* (1920) 78—79.

DÉVAUD has issued a monograph in which he examines the etymology of 12 Coptic words which he traces to their anc. Egyptian sources¹, and has contributed a note on ORZG to the "Miscellen" in the *Zeitschr. f. Äg. Sprache*².

Important contributions are made by SETHE, one on the formation of the Coptic causative by the use of the verb † "give", and the other on the relative use of the participle³. SETHE also makes two contributions to the *Zeitschr. f. Äg. Sprache*, one on MHTY-CWTM⁴, the other on ZXE⁵.

STEINDORFF has published a shorter manual based on his well-known Coptic grammar⁶.

E. NAVILLE in a treatise on the relation of Egyptian to the Semitic languages commonly so recognised, makes a considerable use of Coptic to illustrate his arguments⁷.

C. KUENTZ has written a note on an instance of abbreviation in Coptic orthography⁸.

Of reviews of earlier work reference may be made to WIEDEMANN's review of SETHE on the nominal sentence in Egyptian and Coptic⁹.

Although Ethiopic has no direct philological relationship to Coptic, yet Ethiopic material is so often employed to illustrate Coptic church history and liturgy that it may be permissible to notice MERCER's introductory Ethiopic Grammar with chrestomathy and vocabulary¹⁰.

VIII. Art, Archaeology, Excavations.

A further fasciculus of the "Dictionnaire d'Archéologie Chrétienne" has appeared and includes an article on Egypt by Dom LECLERCQ¹¹ in 42 sections. That on Liturgy is brief as the subject has already been treated in cols. 1182—1204, but sect. 40 adds new information about the ritual of blessing the Nile inundation. As might be expected the chief contributions are contained in the two sections (27, 28) dealing with "epigraphy" and "archæology." Other fasciculi containing matter more or less directly bearing on Egypt include an article on "École"¹².

Of objects of artistic and archæological interest KAUFMANN gives an account of a late painted grave cloth with the representation of an angel¹³. PAGENSTECHER describes a Coptic reliquary in the Museum at Stuttgart¹⁴. POGLATEN-NEUWALL gives an account of a pyx in the Pierpoint-Morgan collection¹⁵.

An interesting account of a Palestinian-Coptic ivory of the Ascension in the Pierpoint-Morgan collection is given by J. B. in the *Bulletin of the Metropolitan Museum of Art* (New York)¹⁶.

¹ DÉVAUD: *Étymologies coptes* in *Recueil* xxxix, no. 54 (1921) 155—177.

² *Zeitschr. f. Äg. Spr.* LVII (1922) 140—141.

³ SETHE: *Das koptische Kausativ* von † „geben“ in *Nachr. v. d. G. d. Wissensch. Göttingen, Phil.-Hist. Kl.* (1919) 139—144.

⁴ SETHE: *Die relativen Partizipialumschreibungen*, id., pp. 145—158.

⁵ *Zeitschr. f. Äg. Spr.* (1922) 138.

⁶ Id. 138—139.

⁷ STEINDORFF: *Abriß der koptischen Grammatik, mit Lesestücken und Wörterverzeichnis*, Berlin, 1921, pp. 70, of which 28 contain Chrestomathie, and last 10 pp. a good vocabulary.

⁸ NAVILLE: *L'évolution de la langue égyptienne et les langues sémitiques*, Paris, 1920, pp. xiii + 178.

⁹ KUENTZ: *Un cas d'abréviation graphique en copte* in *Bull. de l'Inst. Fr.* XIII (1917) pp. 169—173, also pub. sep. Cairo, 1918, p. 8.

¹⁰ In *Or. Lit. Zeit.* (1921) 159.

¹¹ MERCER: *Ethiopic Grammar*, Oxford, 1920, pp. 116.

¹² *Diet. d'Arch. Chrét.*, fasc. 43—44 (1921) cols. 2401—2571.

¹³ Fasc. 41—42 (1921) cols. 1730 sqq.

¹⁴ KAUFMANN: *Ein spät-koptisches bemaltes Grabtuch aus Antinopolis in Oberägypten* in *OC.* (1918) 128—132.

¹⁵ PAGENSTECHER: *Ein koptischer Reliquienüberzug mit Madonnaarstellung* in *Archiv f. Relig.-Wiss.* (1919) 424—433, 1 plate.

¹⁶ POGLATEN-NEUWALL: *Eine koptische Pyxis mit den Franken am Grabe aus der ehemaligen Sammlung Pierpoint-Morgans*, 1919.

¹⁷ *Two Early Christian Jewries of the Ascension* in *Bulletin of the Metropolitan Museum of Art*, Nov. 1919, pp. 242—244.

KENDRICK has prepared a descriptive catalogue of the textiles from burying-grounds in Egypt now in the Victoria and Albert Museum¹. The first volume has no more than indirect bearing upon the art of Christian Egypt, but the second contains a great deal of matter which illustrates the craftsmanship and art of Christian times (*cf.* especially pp. 5—19 which deal with Christian emblems etc.).

J. F. FLANAGAN has written a useful article upon the origin of the drawloom method of preparing tapestry patterns and deals especially with Egyptian and Coptic tapestries².

A. GUÉRINET has published a collection of plates of Byzantine, Coptic, and Roman textiles of the 4—10 cent.³

EITREM describes an amulet, evidently Gnostic, with a Greek inscription which contains the Coptic word *πρωτε* (dialect *φρωδη*)⁴.

M. SIMAÏKA has published a brief historical note on the museum of Coptic art in Old Cairo⁵. This museum is attached to the church of the Mu'allakah in Old Cairo and was founded through the activities of Marcus Pasha Simaika; already a considerable number of manuscripts have been placed on its shelves and the work of editing the older ones has been commenced under the supervision of G. SORBY.

DARÉSSY describes the explorations which have been made in the remains at Fustat which have yielded one Coptic inscription⁶.

H. MÜLLER writes upon Christian material found in the excavations at Tinnis⁷.

H. G. EVELYN WHITE has written an account of the exploration of the monasteries of the Wādī Natrūn, describing the three convents known as Dēr Abu Makār, Dēr es-Suriān, and Dēr Anba Bishoi, their architectural features, the life of their inmates, and the find of a number of manuscript fragments in Dēr Abu Makār⁸. During 1921—1922 members of the New York Metropolitan Museum Expedition have been engaged in an architectural and archaeological survey of the monasteries and it is hoped that the results, fully illustrated will be published in due course. At Dēr Abu Makār a large deposit of waste paper was discovered which included fragments of the same MSS. from which the Tischendorf and Tattam fragments were derived. Specially note-worthy are five leaves from a new apocryphal gospel, about 35 leaves from a Bohairic version of apocryphal acts, a fragment of an apocryphon on Adam etc. The hagiographical material includes leaves from the martyrdoms of Apa Kradjon, and Amoun, Apa Apoli (fragments missing from the Vatican MS.), Thomas of Shendalat, and others; from the lives of Pidjimi, Timothy Aelurus, Apa Hor, the "Vision of Benjamin," and similar works. Worthy of mention are considerable portions of a Greek MS. (circ. 1330) of the liturgies of S. Gregory and St. Basil, and of an Arabic MS. containing anecdotes concerning the fathers, but written in Coptic characters.

The Coptic and Greek documents from the Theban monastery of Epiphanius are now being printed for the Metropolitan Museum, edited by W. E. CHURCH and H. G. EVELYN WHITE. Reference has already been made to the Theotokia fragments found in the Dēr Abu Makār.

DARÉSSY writes some notes upon Luxor during the Roman and Coptic period⁹. Elsewhere the same writer publishes a study on the bishopric of Saïs and Naucratis¹⁰, whilst STEINWENTER has produced an important monograph on oblates in Coptic monasteries¹¹.

¹ KENDRICK: *Catalogue of textiles from burying grounds in Egypt*, vol. I (1920), pp. 142, 33 plates; vol. II (1922), pp. vii+108, 32 plates.

² FLANAGAN: *Origin of the drawloom used in the making of early Byzantine silks in Burlington Mag.* LXXV (1919) 167—172.

³ GUÉRINET: *Étoffes byzantines, coptes, romaines du IV^e au X^e siècle*, Rio de Janeiro, 1922, 12 plates in colour, 4 in black, reproducing 173 fabrics.

⁴ EITREM: *A new Christian amulet in Aegyptus* III (1922) 66—67, previously pub. in *Videnskapselskabet Forhandling*, Christiania, 1921.

⁵ *Note historique sur le musée copte au Vieux Caire, à l'occasion de la visite de S. Hautesse Fouad I. Sultan d'Égypte, mardi 21 Déc. 1920*, Cairo, 1920, in French and Arabic.

⁶ *Antiquités trouvées à Fostat* in *Ann. Serv.* XVIII (1918) 275—278.

⁷ *Vestiges chrétiens à Tinnis* in *Ann. Serv.* XVIII (1918) 72—74.

⁸ *The monasteries in Wādī'n Natrūn* in *Bulletin of the Metropolitan Museum of Art*, New York, *The Egyptian Expedition* (1920) 34—39, (1921) 54—60.

⁹ DARÉSSY: *Notes sur Louxor à la période romaine et copte* in *Ann. Serv.* XIX (1920) 159—175.

¹⁰ *L'évêché de Saïs et Naucratis* in *Ann. Serv.* XX (1920) 172—174.

¹¹ STEINWENTER: *Kinderschenkungen an koptische Klöster in Sonderabdr. aus der Z. der Savigny-Stift. f. Rechtsgesch.* XLII, 175—207, N. D.; also pub. sep. Weimar, N. D.

In the history of art and architecture Strzygowski's "Ursprung der christlichen Kirchenkunst"¹ has no separate treatment of Coptic art or architecture, but incidental references occur². A work on Coptic architecture is also reported as by MIKDEMA³, and has been reviewed by WIEDERMAN⁴, but I have not been able to see a copy of the work itself.

GRÜNEISEN has published a larger work on Coptic art which has been produced in a sumptuous style and includes a number of photographic studies of details of ornament⁵.

From the same press and in similar style is the description of the church of S. Barbara in Old Cairo by A. PATRICOLO and DE VILLARD⁶, with a supplementary note by H. MUMER on two Coptic inscriptions in the church. BUNT contributes a study on "The genesis of Coptic twists and plaits"⁷. An English translation (by G. McN. RUSHWORTH) has appeared of RIVOIRA's "Architettura Musulmana" (1914)⁸ in which he discusses the employment of Coptic craftsmen and artists in the building and adornment of mosques and the use of Coptic motif in decoration.

An article descriptive of NAWRUZ, the Coptic New Year, has appeared by M. A. MURRAY⁹, whilst A. H. SAYCE, treating Cairene and Upper Egyptian folk-lore¹⁰, makes various references to Coptic traditions and notes the survival of songs in Coptic amongst the fellahin as late as the middle of the 19th century, the meaning of the words being, of course, no longer understood.

S. H. LEEDER has published a popular work on the manners and customs of the modern Copts¹¹.

DR. LACY O'LEARY.

Nubian Philology.

ABEL reviews three works on Nubian languages: HEINITZ, *Phonographische Sprachaufnahmen aus dem ägyptischen Sudan* (1917); CZERMAK, *Kordufän-nubische Studien* (1919); and KAUCZON, *Die bergnubische Sprache (Dialekt von Gebel Delen)* (1920). The last is the work of a missionary long resident amongst the Nuba of Kordufän. *Or. Lit. Zeit.* xxv, 249-252. CZERMAK's work will interest students of Christian Nubian especially by his discovery (on p. 95) of a conditional form surviving in Kordufän corresponding to the final form in -naa in Christian texts.

In a separate work ABEL presents a new view of the Nubian verb in relative and other subordinate sentences. Some twenty pages (pp. 35-56) of his treatise are devoted to an exhaustive collection of instances occurring in the Christian texts. *Die Verbalformen des abhängigen Satzes (Subjunktiv und Infinitiv) im Nubischen* (*Sitzungsber. d. Heidelberger Akad.* 1921, 5. Abh.).

F. L. G.

¹ STRZYGOWSKI: *Ursprung der chr. Kirchenkunst*, Leipzig, 1920, xii+204; an English trans. is now being printed at the Clarendon Press.

² cf. pp. 148-149.

³ *Koptische Baukunst* in *De Bouwwereld* xvii, 4, 46. Amsterdam, 1918.

⁴ *Or. Lit. Zeit.* (1920) 72.

⁵ GRÜNEISEN: *Les caractéristiques de l'Art copte*, Florence (1922), pp. 193, with 62 plates and 32 figures in the text.

⁶ PATRICOLO-VILLARD: *La chiesa di Santa Barbara al Vecchio Cairo*, Florence (1922), p. 62, 59 illustrations.

⁷ In *Ancient Egypt* (1920) 97-104.

⁸ RIVOIRA: *Moslem Architecture*, Eng. tr., Oxford, 1918, xvii+383.

⁹ In *Ancient Egypt* (1921) 79-81.

¹⁰ *Cairene and Upper Egyptian Folk-Lore* in *Folk Lore* xxxi (1920) 173-203.

¹¹ LEEDER: *Modern Sons of Pharaoh, a study of the manners and customs of the Copts*, London, 1918.

NOTICES OF RECENT PUBLICATIONS

Koptisches Handwörterbuch. By WILHELM SPIEGELBERG. (Continued from p. 119.)

P. 140 τω, το; is not this merely *qual.* of †? Cf. p. 139 το ε.—οἶαι here as elsewhere (οὔται) "intel." νετρα in the passage cited would be "monastery," while κενυλαρι (*sic Cod.*) I take for *σκεπτάριον "awning."—τεεβε is the A form in Ex. ii 3.—P. 142. τωδε; non-existent; in Clem. p. 70, 18; read τωδρ = ἡτέρο. — τωδε B "seal"; non-existent; read τωδ, the only form found.—It is hard to believe that τνα = "eternity" when it translates εἰς αἰῶς, which here in B is εὔτρο (*cf.* S. Amos viii 7).—P. 143. If the etymology for τωκ "bake" is right, then surely that on p. 162 for τωσε cannot justify this same meaning.—†κβο; why as one word and not †κβο, like χι-κβο, †ρμαε?—τκας; only S; PEYRON's mistake.—P. 144 τλω; non-existent; read (ZOGGA 443 n.) τλωσε, i. e. σλοοσε, *cf.* Gen. xxviii 12 τλοοσε (*sic Cod.*).—τλοκλεν = *rotare crinem* in Jerome's *Vita Hilar.*—P. 145 τωμ "hedge"; so PEYRON, but prob. mat. hung over door (*cf.* Mus. Guim. xvii 171, CSCO. 73 168).—P. 146 I have not found τωμτ B "meet."—P. 147 τηε is, I think, always an earthen dyke.—P. 149 τανητ; *leg.*? τεαδνητ (*cf.* vv. 9, 15, where τεαδο = this same Greek).—†ηεε, though confirmed by ENGELBRETT, prob. *leg.* ηεε (S. τκας in both places).—P. 150 τονγ=τὸνγ (*cf.* p. 142) "seal-impress."—τρω; *cf.* p. 103, where this was given as πρω. Both forms are found.—P. 151 I do not find τρανε S., nor τ(ε)ρειωστ B.—τρηετ; non-existent; a variant (MS. P. Morgan) shows this = τριπ, as suggested.—P. 152 τερ-τωρι; whence the meaning "ladder"?—P. 153 τεβο A is repeated p. 155, where it rightly belongs.—P. 156 τατ; Cod. Vatic. Deut. xviii 11 has a noun ατατ=Lao. αψεβεν.—P. 157 †τονι; non-existent; *leg.* †τον (= WINSTEDT, *Theodore* 72; LEMM, *Misc.* cvii 1154, misreads this).—οωοτελ; Tattam at any rate has οοτελε.—τωωκον; PEYRON's instances are all B.—P. 158 τωτηαε is not A, but A₂ (*Acta Pauli*).—οωοττ "statue"; non-existent; is οοτωτ in Balestri-Hyvernat.—P. 159 τωω "grind" (corn) seems to me an unnecessary novelty, where "arrange, dispose, place" would suffice.—οωωυ; prob.= οωδω (p. 142).—P. 160 οιδι "hire"; merely "be drunken" (Codd. A and S have μεμεθυμένω).—For τρο read †ρο—†ρο; PEYRON (WILKINS) has τωρ, Cod. Vatic. and Lao. μωιτ.—P. 161 τωρρ; the better MS. has τωρρ (*cf.* Can. Ath. p. 103).

P. 169 †τowan; non-existent; *leg.* †τowan with Lao. p. xii, Codd. Vatic. & Paris i.—αοτowan in PS. 331 may be ετα-, 3d fut., yet P. Bruce 123 has this form.—P. 170 οτυρε; non-existent; Job xiii 27 should read ταοτυρεαε αε = δέ μου τὸν πόδα.—P. 171 οτpac; its only meaning is "staff"; "crown" is due to PEYRON's wrong reference.—οτιει "swell"; the Copt mistook, I think, πῆμρημι for πρίω (*cf.* vars. in Cambridge Lxx) and so used the word for "saw."—P. 175 οτωαμ; a bad form, in Paris 44 only; a var. of same text οτωαμ.—οτρε in Paris 44 only; MASPERO in loc. ροτρε.—P. 176 ορεο κατ; that this, despite the *stat. constr.*, is but an ethic dat. is clear from use of κατ, where the subject is sing. (Gen. xiiii 18 etc.).—P. 177 οταρμαε; non-existent; other instances show the ε to belong to following ante.—P. 178 οροσορε; it is the man, in a. 4, who gnaws his own tongue, not the disease.—ετ; I do not find this as B.

P. 179. Surely the two ωα are one?—P. 180 ετολμ; I think this quite doubtful; *cf.* ετολμ in Prov. xi 1.—ωμε F, once only; read ωλμ.—P. 184 ωαμ in Sir. xxiv 29 has the nominal form ωμαεγ.—P. 185 ωρι; both PEYRON's refs. are from KIRCHER, not ZOGGA!—ωρεβ; the following αποτωμ (*sic Cod.*)=αποτοτωμ and begins a new phrase, "they were not willing to."

P. 186 ωα, εω is, I suspect, "swine," despite the Greek.—ωα- "worth"; non-existent; ταιω || τιμή, ωα- is the preposition = δση κατ.—P. 187 ωαιε; not "long" but "length," contrasted with πωαη.—ωοτ "hundred"; a suspect variant, found once in a late MS.—P. 188 εμιαι; non-existent; ε- is the usual preposition after ορο, as in Mat. xiii 5.—ωο "sand," ωοι "height"; why these unusual

forms?—P. 189 $\psi\alpha\delta\iota\zeta\omicron$; in B found once only, as $\psi\epsilon\delta\iota\zeta\omicron$. $\text{Petr}\alpha\varsigma$'s form prob. confused with S $\psi\alpha\delta\epsilon\zeta\omicron$.— $\kappa\tau\psi\epsilon\delta\iota\omega$ $\alpha\epsilon$ (e. g. Deut. xxviii 62) is "instead of being."— $\psi\omega\delta\epsilon$ and $\psi\omega\delta\epsilon$ (p. 203) have different etymologies, yet they can hardly be different words.—P. 191 $\psi\alpha\alpha\epsilon$; I suggest $\psi\alpha\rho\iota\epsilon$ as appropriate here.— $\psi\alpha\lambda$; rather "bundle" (= $\psi\alpha\lambda$), than "branch".—P. 193 $\psi\lambda\epsilon\epsilon\tau$; an error due to me; in all cases read $\psi\epsilon\lambda\epsilon\epsilon\tau$, as in the texts.—P. 194 $\psi\omega\lambda\alpha$ should be $\psi\omega\lambda\sigma$.— $\delta\alpha\mu\iota\tau\iota$; MSS. have $\delta\alpha\mu$. (c. Stern § 192).— $\rho\delta\omega\epsilon$ $\alpha\psi\omega\alpha$; instead of $\tau\epsilon\lambda\epsilon\psi\iota\sigma\tau\omicron\varsigma$ cf. Vulg. *subtilibus*.— $\psi\alpha\mu$; non-existent; a bad reading for $\psi\omega\epsilon$, cf. the same verse on pp. 173, 176 of Wessely.—P. 195 $\psi\mu\omega\tau\eta$ only in Paris 44, elsewhere $\psi\mu\omega\tau\epsilon$.— $\psi\omega\mu\epsilon$; can hardly mean both "garment" and (p. 154) "fine, thin." The Arabic *rafi* shows that the latter is right.—P. 196 $\psi\mu\eta\eta\epsilon$; Stern and Mallox have $\psi\mu\eta\eta\iota$.— $\rho\mu\tau\epsilon$; Lacau adds *sic* to $\rho\mu\tau\epsilon$.— $\psi\mu\tau\epsilon\rho\sigma\tau$; doubtless misprint for $\nu\sigma\sigma\tau$.— $\psi\epsilon\mu\phi\alpha\tau$; not a verb; prob. ϕ has fallen out in the text quoted.— $\psi\omega\alpha\alpha$; the meaning "pierce" was given by Lohet (*Rec.* xiv 108), incorrectly by Bshai (*ÄZ.* '88, 128).—P. 198 $\psi\epsilon\eta\epsilon\eta\iota$; I cannot find this as "palmtree". In Zöega's citation (his two are but one) it = $\sigma\epsilon\beta\epsilon\eta\iota\alpha\varsigma$, as usual; in Clem.=Is. I 18, I suspect a confusion, since S and B leave $\phi\omicron\iota\iota\kappa\alpha\sigma\theta\eta\iota$ untranslated.—P. 199 $\psi\eta\eta\iota$; non-existent; in both $\text{Petr}\alpha\varsigma$'s instances MS. has $\psi\eta\iota$.— $\psi\epsilon\eta\sigma\iota$; non-existent; MS. has $\delta\iota\psi\epsilon\eta\tau\iota$ $\rho\omega$ "I on my part asked him"; so too $\psi\epsilon\eta\tau\iota\omega$ = Mus. Guim. xiv 219 "me too they asked."—P. 200 $\epsilon\sigma\tau\epsilon$ $\nu\epsilon\iota\epsilon\eta$ $\psi\omega\tau\epsilon$ "embroidering needle" (cf. Triad. 660).—P. 201 $\psi\epsilon\eta\alpha\epsilon$; non-existent; MS. has $\psi\eta\iota$ $\alpha\epsilon\sigma\tau\eta\alpha\sigma\iota$ (Mus. Guim. xiv 56).— $\psi\eta\epsilon$, a corn measure; non-existent; leg. $\epsilon\tau\epsilon\eta\psi\iota$ - $\eta\epsilon$ (Paris 43, 111; cf. Stern, *Dem. Urk.* 188).—P. 202 $\psi\epsilon\eta\psi\omega\iota$ = $\psi\epsilon\delta\psi\omega\eta$ (cf. Ps. li 2).—P. 203 $\psi\omega\eta\epsilon$ "begin to"; is this justified? If so, one must so translate in Lu. vii 38 and many other places.—P. 204 $\psi\alpha\alpha\rho\mu\alpha\varsigma$ = $\delta\epsilon\eta\mu\alpha\tau\alpha$ $\tau\omega\varsigma$ $\beta\omicron\omega\eta$ (Zahn, *Ac. Joan.* 145).— $\psi\alpha\iota\tau\iota$, n. 14; the meaning here is, I think, the ordinary one: "smite".—P. 205 $\psi\epsilon\epsilon\rho$ $\nu\epsilon\zeta\iota\mu\epsilon$; prob. misprint for $\psi\epsilon\epsilon\rho\epsilon$.— $\alpha\tau\psi\omega\rho\iota$; non-existent; leg. $\alpha\tau$ - ψ - $\omega\rho\iota$ (var. $\sigma\rho\eta\eta$), $\alpha\tau\epsilon\lambda\psi\gamma\alpha\pi\tau\omicron\varsigma$, $\delta\chi\omega\rho\eta\tau\omicron\varsigma$.—P. 206 $\psi\alpha\rho\eta\omega\tau$, var. $\psi\alpha\rho\sigma\omega\tau$ "fresh, raw hide"; only $\rho\rho\eta\omega\tau$ = "palmstaff".— $\alpha\psi\omega\rho\eta\epsilon$; non-existent; leg. $\alpha\psi\omega\eta\epsilon$.—P. 207 $\psi\omega\rho\tau$ "band"; leg. $\psi\omega\rho\tau$.— $\psi\omega\rho\tau$ "saw" (B, not S); this is merely the preceding word: the refs. nn. 5 and 6 are identical.—P. 209 $\psi\omega\tau\epsilon$ A; I cannot find this; is it S? The compounds cited by no means imply a verb.—P. 210 n. 14; it is to be observed that several MSS. have $\psi\alpha\alpha\tau\epsilon$.—P. 211 $\psi\eta\tau$; but Clusca *ad. loc.* has $\psi\alpha\tau$.—P. 212 $\psi\alpha\tau\eta\sigma\eta$; surely a mere error for $\rho\alpha\tau$, which constantly = $\chi\eta\tau\sigma\chi\omicron\delta\omicron\varsigma$.—P. 214 $\psi\omega\psi$ "pair": var. $\psi\omega\iota\psi$ preferable.— $\psi\epsilon\psi\eta\epsilon$; non-existent; this is $\psi\epsilon\psi$ $\kappa\epsilon\rho\mu\iota$ (= Wiestedt, *Theodore* 27).—P. 216 $\psi\omega\zeta\tau$, a measure; prob. = $\psi\omega\zeta\epsilon$.— $\rho\epsilon\zeta$; occurs in Schmidt's Index to Clem., but not in the text.— $\psi\omega\tau\epsilon$ Paris 44 = Paris 43 $\alpha\sigma\tau\epsilon$.— $\psi\eta\eta$; of this it can only be said that Clusca has $\psi\alpha\alpha\epsilon$ in Job xvii 6, xix 9, xxi 30.—P. 217 $\psi\omega\tau\sigma\epsilon$; is not $\psi\omega\tau\sigma\epsilon$ probable?

P. 218 $\psi\tau\omicron\phi\tau$; Cod. Vatic. has the variant $\tau\epsilon\phi\omicron\phi\tau$, which should show $\tau\epsilon\phi$ to be the pronoun.

P. 222 $\rho\epsilon\delta\omicron\tau$ [$\sigma\tau\eta$]; since the last syllable is an assumption, I should prefer $\delta\omicron\tau\eta\epsilon$, or $\delta\omicron\tau\eta\eta\epsilon$.—P. 223 $\rho\iota\omega$ = A; presumably a mistake for $\rho\iota\omega\omega$ = (so Schmidt in Clem. 38, 27).—P. 224 $\rho\epsilon$ "feast"; prob. $\rho\alpha$, as in 2 Mace. vi 6.—P. 225 $\sigma\iota\zeta\omicron$ in Num. ix 7, read with Cod. Vatic. $\sigma\rho\omicron\zeta$ $\epsilon\sigma\tau\iota\epsilon\iota\tau\epsilon\iota\tau$.— $\rho\omicron\iota\epsilon$; read $\rho\omicron\iota$ $\epsilon\psi\alpha\alpha\epsilon$ ("make) concentration in speech".— ρ $\rho\omicron\iota$; prob. as in Mk. v 35 = $\sigma\epsilon\lambda\lambda\epsilon\iota\tau$.—P. 226 $\rho\omega$ "cease"; in the phrase quoted by Stern not this verb, but the pron. $\rho\omega\omega$ occurs; "until God arranged for the brother on his part." No instance of $\rho\omega$ reflex. is known to me.— $\rho\eta\delta\epsilon$ n. 17; here the word must = A $\epsilon\delta\eta$ and must be distinct from "mourning."—P. 229 $\psi\epsilon\eta\sigma\iota$; leg. $\psi\epsilon\eta\sigma\iota$, in Pentateuch and elsewhere.— $\rho\alpha\eta$ "baldhead"; various texts, e. g. Jême 66, 33, make it probable that this is a trade.— $\rho\omega\eta\alpha$ = $\rho\omega\sigma\mu$.—P. 230 $\rho\lambda\iota$; I cannot believe that in n. 1 this is anything but the usual *aliquid, nihil* and I would translate *e re nihili*, remembering that $\rho\eta\alpha\alpha\tau$ is as often "thing" as "vessel".— $\rho\eta\delta\epsilon$ (in Jême 68, 51) is, I think, $\rho\lambda\eta$.—P. 232 $\rho\lambda\omicron\tau\lambda\omega\sigma\tau$; usual meaning "high" (of things).—P. 233 $\epsilon\rho\mu\eta$; this, in *Mit. Rain.* v 32, is for $\nu\epsilon\zeta$ $\mu\mu\epsilon$ "genuine, superfine oil."—P. 234 $\rho\omega\mu\epsilon$; here again I fear Spinkenberg has been misled by a careless note of mine (*Ostrakon* p. 42); $\rho\omega\mu\epsilon$ is the sole form found so far.— $\mu\omicron\tau\delta\epsilon\mu\iota$ or $\mu\omicron\tau\delta\eta\mu\iota$ appear the right forms.—P. 237 $\rho\alpha\eta\tau\omicron\sigma\tau$; on p. 6 n is not superlined. Which is correct?—P. 238 $\delta\iota\mu\iota$ B should be $\rho\iota\mu\iota$.—P. 239 $\mu\alpha$ $\eta\zeta\omega\eta$ can hardly be separated from $\mu\alpha$ $\epsilon\phi\omicron$ $\eta\zeta\omega\eta$.— $\rho\eta\delta\epsilon$; no evidence for its being masc.—P. 241 $\rho\eta\eta\iota$; non-existent; MS. has $\rho\eta\eta\iota$.— $\rho\rho\eta$; the expression of numbers by letters is unknown in S (except in some old MSS., e. g. the Bruce Pap.).—P. 242 $\rho\rho\alpha$ is always "face" in B, never "voice."—P. 244 $\rho\rho\phi\tau$; all MSS. have $\epsilon\rho\phi\tau$.—P. 245 $\rho\rho\omega\psi$ "freeze"; in Mat. xiv 12, var. $\rho\rho\omega\psi$, prob. = $\sigma\rho\omega\psi$.—P. 246 $\delta\iota\rho\delta\iota\rho$; I take this as an adjective, "striped" (as Amélineau, *M. Guim.* xiv, 268).— $\rho\omicron\epsilon\epsilon$ $\epsilon\rho\eta\iota$; should be $\rho\omicron\epsilon\epsilon$ $\rho\alpha\rho\eta\iota$.—P. 247 $\delta\iota\epsilon\iota$; B has $\rho\iota\epsilon\iota$ where "spin" is certain; elsewhere = "toil", e. g. Mat. vi 28.— $\rho\omega\epsilon\zeta$ should

surely join $\rho\omega\mu\gamma$ "despise." — $\rho\epsilon\gamma\rho\sigma\epsilon\delta$, n. 14; H. THOMPSON's collation reads $\rho\mu\eta$. — $\rho\sigma\eta$ "fatness"; read $\delta\sigma\eta$. — P. 248 $\rho\tau\eta$; the phrase (1 Kingd. xvii 7) is $\tau\epsilon\rho\tau\eta \mu\epsilon\gamma\alpha\mu\epsilon\rho\gamma$; therefore not "lance", though gender forbids = $\psi\tau\epsilon$. — P. 250 $\mu\alpha\rho\eta\tau$; imagined by ZOROLA, 537 n. — $\delta\iota\tau$ "flay" appears in B to be confused with $\rho\iota\tau\epsilon$. Are not $\rho\iota\tau\epsilon$ "flay" and "twist" a single word? — $\rho\alpha\tau$; cf. $\rho\alpha\tau\epsilon$ p. 248. — $\rho\omega\tau$ "presence"; not found in B. — P. 251 $\rho\sigma\epsilon\iota\tau\epsilon$ "garment" fem. in CO. 100, 174, 368, 465 etc. — $\rho\lambda\epsilon\iota\tau\epsilon$ A₂ is "garment". — $\rho\sigma\iota\tau\epsilon$ "darts"; an error? One var. has $\sigma\sigma\epsilon$. — $\delta\omega\tau \epsilon\beta\sigma\lambda$; I think this should be $\delta\iota\tau$, the same in Jer. xviii (sic) 15 as in Job xxx 15. In Mich. v 13 A $\rho\lambda\alpha\tau$ ought to = S $\psi\lambda\alpha\tau$, which often translates $\epsilon\chi\sigma\phi\tau\epsilon\iota\nu$ (as indeed it once does in A, Zach. xii 11). — P. 252 $\rho\omega\tau\mu$; surely a scribe's error for $\psi\omega\tau\mu$ (cf. 2 II. lower in the text cited). — P. 253 $\rho\omega\tau\eta$; merely for $\omega\tau\eta$, as SPIEGELBERG suggests. — P. 254 $\rho\omega\tau\gamma$; for $\omega\gamma\tau$, I think. — P. 257 $\rho\omega\sigma\tau\eta\gamma$; S should be $\rho\sigma\sigma\tau\eta\gamma$. — P. 259 $\rho\omega\chi\epsilon$; only once so, elsewhere $\rho\omega\chi$. — $\rho\omega\chi\chi$; THOMPSON's var. $\rho\sigma\chi\epsilon\chi$ is preferable. — $\rho\omega\sigma\eta$; between this and $\rho\omega\chi\eta$ there seems to be a confusion, for nn. 2 and 12 refer to the same text.

P. 260 $\chi\alpha\iota$; non-existent; read $\alpha\chi\alpha\iota\epsilon \psi\eta$. — P. 261 $\chi\alpha\tau\mu\omega\iota\tau$ B; read $\sigma\alpha\tau$. — P. 262 $\chi\iota\eta$; I suggest $\chi\sigma\mu$ misread. — P. 264 $\chi\alpha\delta\alpha\chi\iota\delta$; non-existent; MS. $\chi\alpha\delta\chi\iota\delta$ = $\mu\iota\kappa\rho\sigma\phi\alpha\rho\eta\varsigma$. — $\chi\alpha\eta$; I do not find this with $\epsilon\beta\sigma\lambda$. — P. 265 $\chi\omega\eta$ "possessions, property"; the meaning is (Jeme 74, 37) "the whole" of my property. — $\chi\omega\iota$; non-existent; LAGARDE $\chi\omega\chi\iota$. And $\chi\epsilon\kappa\epsilon$ is S, not B. — P. 266 $\chi\sigma\lambda$ "hole"; non-existent; MS. $\chi\sigma\lambda$. — P. 267 $\chi\omega\lambda\eta$; the evidence, when disentangled, shows: S $\chi\omega\lambda\eta$ (1) "stretch, prolong," (2) "dive"; B $\sigma\omega\lambda\eta$ (1) "stretch," (2) $\chi\omega\lambda\eta$ "dive", *M. Guim.* xvii 190 alone having $\sigma\omega\lambda\eta$ in the latter sense. $\chi\omega\lambda\eta \epsilon\mu\iota\sigma\epsilon$ "be long in giving birth." — $\chi\epsilon\lambda\mu\iota$; non-existent; MS. $\chi\epsilon\lambda\mu\iota$ (cf. *Kim.* 77 *halamah* = $\eta\iota\gamma\iota$). — P. 268 $\sigma\omega\lambda\sigma$; as often in MS. of *M. Guim.* xvii, the scribe has written σ for normal χ . For this word a different meaning is given on p. 288. — P. 269 $\chi\sigma\lambda\chi\epsilon\lambda$ B not found. — $\chi\mu\eta$; PEYRON is right; MS. has $\chi\mu\epsilon$. — $\chi\mu\epsilon$; an error due to my misreading; MS. (collated) has $\chi\eta\sigma$. — $\sigma\iota\mu\epsilon$ A; always $\sigma\iota\mu\epsilon$ except in text cited. — $\sigma\mu \eta\sigma\tau\omega$ means "inform oneself (about)". — P. 270 $\chi\sigma\mu$ "basin"; rather suspect; the Arab has *kuwah* "strength." But the same words in Ps. cvii 9 leave $\lambda\acute{\epsilon}\beta\eta\varsigma$ untranslated, as does S in both places. — $\mu\epsilon\chi\epsilon\mu$; seeing the divergencies in Greek ($\pi\acute{\alpha}\lambda\iota\alpha$, $\pi\acute{\alpha}\lambda\iota\eta$), S $\mu\epsilon\chi\alpha\eta$ and F $\mu\alpha\kappa\tau\omega\epsilon$ (though the last 2 are equivalents), the meaning remains obscure. — $\chi\omega\mu$ "generations" is as often sing. — P. 272 $\chi\epsilon\eta\sigma\tau$; Cod. Vatie. and LAG. have $\chi\alpha\eta\sigma\tau$; cf. $\chi\alpha\eta\epsilon$. — P. 273 $\chi\eta\sigma\tau$; I think this = B $\sigma\eta\sigma\sigma\tau$, as in Ex. viii 10 (14). — $\chi\eta\sigma\tau\gamma$; cf. $\chi\sigma\tau\gamma$. Ryl. 94 p^r has $\chi\eta\sigma\tau\gamma$ $\mu\epsilon\kappa\epsilon\sigma\tau$, for the usual $\chi\sigma\tau\gamma$. — $\chi\eta\chi\mu\iota$; BM. 192 $\chi\eta\tau$ (cited by THOMPSON *ad loc.*) seems the probable reading; cf. AMÉLINEAU *Schenoudi* I 353 $\alpha\tau\epsilon\gamma\alpha\tau\alpha\eta\eta \chi\iota \mu\mu\sigma\iota$. — P. 275 $\chi\eta\eta\tau$; Paris 44, which PEYRON quotes, has $\chi\eta\eta\eta\tau$; WOIDE's version is different. — P. 277 $\sigma\epsilon\rho\sigma$; P. 44, cited by PEYRON, has $\sigma\epsilon\rho\sigma\epsilon$. — $\chi\epsilon\rho\chi\epsilon\rho$; meaning unknown. In Deut. xix 23 Cod. Vatie. and LAG. read $\chi\epsilon\gamma\chi\omega\gamma$. — P. 278 $\sigma\sigma\epsilon$ is a $\frac{1}{2}$ $\mu\epsilon\rho\acute{\alpha}\tau\iota\sigma\iota\sigma$, a $\frac{1}{2}$ $\lambda\acute{\iota}\tau\epsilon\alpha$, a $\frac{1}{2}$ $\epsilon\tau\iota\omega\sigma\epsilon$, a $\frac{1}{2}$ $\epsilon\lambda$, a $\frac{1}{2}$ $\alpha\rho\acute{\iota}\beta\eta$; I see no reason for confining the word to a $\frac{1}{2}$ *Solidus*. — P. 279 $\chi\omega\tau$; in George 54 the arabic translates "pillar," which seems preferable. — P. 280 n. 14, $\chi\omega\psi$ is here, I suspect, for $\omega\psi\chi$. — P. 281 $\chi\sigma\sigma\gamma\epsilon$; the scribe's original reading $\chi\sigma\sigma\gamma$ (as from $\chi\sigma$) befits the Greek. — $\chi\omega\gamma\epsilon$; the *qual.* $\chi\iota\gamma$ prob. = $\epsilon\tau\psi\eta\gamma$, as ZOROLA 626 n. suggests. — $\chi\omega\gamma$ "touch"; the citation in n. 8 has merely the meaning "draw nigh to," $\kappa\omicron\lambda\lambda\acute{\iota}\sigma\theta\alpha\iota$. — P. 282 $\chi\alpha\chi\epsilon \mu\eta$; I am doubtful as to the meaning I proposed here; perhaps "be hard towards" is better. — P. 284 $\sigma\alpha\sigma\epsilon\tau\sigma\lambda$ (sic Cod.); arab. *samāriyah* (sic), a kind of ship (Dozy); the Greek equivalent is doubtless $\kappa\alpha\rho\acute{\alpha}\beta\iota\nu$. — $\sigma\sigma\chi$ is *stat. pronom.* only.

P. 285 $\sigma\iota\eta$ "border"; for $\sigma\iota\eta\sigma\tau$ Cod. Vatie. has $\sigma\iota\eta \sigma\tau\sigma\sigma\epsilon\eta$. — $\sigma\alpha\delta\epsilon$; I suspect $\sigma\lambda\delta\epsilon$, cf. $\sigma\lambda\mu$. — P. 287 $\sigma\omega\lambda$ "repudiate"; I do not find this as S. — $\sigma\omega\lambda$ "collect" n. 2; both PEYRON's (ZOROLA's) instances of "rob" should be "collect." — $\sigma\sigma\sigma\lambda\epsilon\epsilon$; obscure; B of this text uses $\mu\epsilon\lambda\iota$, thus it is part of lower leg or foot. — P. 288 $\sigma\lambda\sigma$; nn. 7 and 8 are identical and has not the form with ϵ . — $\sigma\lambda\sigma$ should be $\sigma\lambda\sigma\chi$. — $\sigma\mu\eta$; read? $\sigma\mu\epsilon$, which occurs a few lines below and is the S. equivalent in both instances. — P. 289 $\sigma\iota\mu\eta$ "cloud"; TATTAM 772 = CSO. 43, 147, where $\sigma\iota\mu\eta$, $\sigma\iota\mu\eta$, ϵ I take as noun from the preceding verb. — $\sigma\sigma\sigma\mu\epsilon$ "gardens"; prob. read $\sigma\sigma\sigma\mu \epsilon\tau\tau\alpha\epsilon\iota\tau$ (cf. *Vulg.*). — P. 291 $\sigma\sigma\sigma\delta$; non-existent in this sense. In the verse cited (n. 1) $\sigma\epsilon\rho\sigma\delta$ occurs; hence confusion? — $\sigma\omega\eta\tau$; read $\sigma\omega\tau\eta \eta\tau\iota\sigma\theta\alpha\iota$. — $\sigma\psi\epsilon$; from Paris 44, Arab. *gawānīs*, Greek $\beta\acute{o}\epsilon\varsigma$ (or $\mu\acute{o}\sigma\chi\alpha\iota$); so prob. read $\epsilon\gamma\epsilon$. — P. 293 $\sigma\sigma\sigma$ "dirt"; should be $\sigma\sigma\chi$. — $\sigma\omega\tau\eta \rho\iota\tau$, n. 4; Greek $\eta\tau\iota\omega\mu\epsilon\kappa\alpha\iota \epsilon\pi\acute{o}$ shows the true meaning. — P. 294 $\sigma\epsilon\tau\sigma\omega\chi$; cf. $\sigma\sigma\chi\sigma\chi$. — P. 295 $\sigma\sigma\chi\epsilon$ ϵ clearly = $\sigma\sigma\chi\delta$ in all places cited, e. g. *Aeg.* 279 $\epsilon\pi\omicron\beta\epsilon\beta\eta\rho\acute{o}\tau\epsilon\varsigma$.

Where the references lie so thick on every page as is the case with Prof. SPIEGELBERG's Dictionary, a certain proportion of errors is inevitable and as the book is one sure to be much used, a list of some

of these—only such as were casually observed during the compilation of the above notes—may be not unwelcome. The large figures here=pages, the small=notes.

3₁: *Vit. Sin.* 66₄—Ib.₅: *Nah.* 3₁₇—Ib.₆: *Is.* 1₆—5₄: *Zech.* 14₁₀—6₄: *Noén* 1₄₃—14₇: TURAJEFF etc. belongs to n. 5—15₁: 278 *line* 7—18₁₂: 107—21₂: 23 (1885)—Ib.₆: *Núm* 7₈—22 *ult.*: *Jac.* 2₂—32₂: 12₁—33₄: III 34—35₁: *Jer.*—Ib.₄: 23 (1885)—48₇, for *Z.* read *Kir.*—54 *penult.*: IV₁₃₀—55₂: § 33—61₅: *Deut.* 25₃₄—63₇: XXV₄₀—64₁: Quatremère, not Tattam—66₄: XLV—68₂: *Apoc.* 3₁₈—69₁: *S.* 31—76₂: *Amos*—79₄: 634—88₄: *Schen.* IV—91₆: *Ann.* 34—95₄: 28₄₂—96₄: *Zech.* 14₁₂—109₂: (1912)—111 *עבדל*: (*Elém.* 25)—122₂: 25—125₉: no. 302₇—131 *line* 25: 7₂—133₂ and ₄ should be transposed—136₄: III 47₁₁—Ib. 10: 632—141₂: 276 *i*—Ib. 12: *Ps.* 143—153₄: 95—173₁₂: 13₄₅—177₁₄: should be 2 *Chron.* III 7 (v. PEYRON)—178₂: *S.* 109—Ib. 11: 34₂₁—180₄: 5₂, 11—181 *line* 10: 110 *ult.*—183₆: 11₂₈—189₂: § 582. What is 619?—192₆: this belongs to n. 10—194₂: 334—Ib.₉: transpose 101 and 119—195₂: *Deut.* 18₁₄—Ib. *penult.*: n. 16 (*ZORGA* 473) relates to the preceding word—196₂: 4₁₀—Ib.₇: 73—198₂: 161₂₅—203₁: 8₁₀—213₂: 366, 367—222₂ and ₃ should be transposed—223₁: read *Theban Ostr.* (H. THOMPSON), no. 2, *S.* 180—224₆: 21 but this ref. does not apply here.—228₂: 104—229₂: for Rossi etc. read Rossi *Papiri* I i 50—Ib. 14: what is *Katal.* *Leiden* etc.? PLEYTE and BOEKER's *Manuscripts* contains no B texts, nor does their small *Antiquités Coptes* (1900)—237₁₀: 5₂₄—245₂: BURGE, *Michael*—251₁₈: 18₁₅—258₂: 27₂—267₁₂: *George* 180₂₀ cannot be traced—274₁₂: 105₇—278₇, nos. 134, 363 show the word *naŋwe*, not *ŋoe*—285₇: 3₁₆—288₇ and ₂ refer to 2 editions of a single text—291₁₁: 10₁₁

W. E. CHURCH.



STELA FROM THE AMHERST COLLECTION

Now in the possession of Alan H. Gardiner Esq.

A STELA OF THE EARLIER INTERMEDIATE PERIOD

By ALAN H. GARDINER, D. Litt.

Inscriptions making allusion to the events which accompanied the rise of the First Theban Empire are rare enough to give interest to any addition to their number. The stela (Pl. XVIII) here to be described formerly belonged to Lord Amherst of Hackney, at the sale of whose collection¹ I noticed it and procured it for a small sum. It is a typical funerary stela of the early Middle Kingdom measuring 37 × 28 cm.; the material is a good hard limestone, in which figures of the owner and his wife, together with the texts belonging to them, are carved in moderately skilful bas-relief; the inscribed surface is slightly convex, and there are traces of red colour on the body of the man. The latter stands looking to right, with ceremonial wig and loin-cloth, holding a staff of office in his right hand and a long stick in his left; his name and rank are given as "*the unique friend, Khenoms(u).*" Behind Khenomsu stands "*his beloved wife Nofret,*" her extended left hand affectionately clasping his shoulder; she wears the usual long clinging dress and a collar like that of her husband; but one article of her attire is less easily explained. At first sight this looks like an upper garment of some material, the roughness or colour of which is indicated by parallel rows of dots. In the middle of the supposed garment is, however, a shield-like blank which suggests the usual aperture seen between the braces passing over the shoulders. Perhaps, after all, the lady was merely wearing the ordinary costume, which it has pleased the artist to depict in a rather unusual fashion².

The hieroglyphic text (apart from the legend over the wife, already translated) consists of six horizontal lines continued in three smaller vertical columns; in these last the sculptor reverts, for several signs, to the doubtless more familiar hieratic script of his original draft. These traits are characteristic of the period of the early Antefs and Mentuhoteps, as may be seen, for instance, in the very barbarous stelae of Zari found by Professor Petrie at Qurneh, in several stelae in the Cairo Museum and particularly in one (no. 1203 = Exh. no. 99)³ of considerable importance in our own national collection. The text may be rendered:

"An offering which the king gives, and Anubis upon his mountain, in the city of embalmment, the lord of the Sacred Land, invocation-offerings of bread and beer to the








¹ *Catalogue of the Amherst Collection of Egyptian and Oriental Antiquities* (Sotheby, Wilkinson and Hodge), 1921, no. 216, described as "a limestone stela of 'The Superintendent of the Priests' ZUZA and his wife NERKET; an interesting example of the XI. Dyn."

² See PETRIE, *Qurneh*, Pl. II for a shield-like aperture between the braces, a little modification of which might give rise to the representation on our stela.

³ See *Egyptian Sculptures in the British Museum*, Pl. VII.

unique friend Khenomso. He says: the overseer of priests Zefi sent me to Yu-shenshen ('Iw-šnšn); I found it destroyed, I re-founded it, I took its cattle, and inspected the payment (?) of all that had to be paid (?)¹, Khenomso."

The locality to which Khenomso was sent is, fortunately, known to have lain a short distance south of Koptos and Kous, though its exact position cannot be fixed. The name occurs in the earliest known list of the towns of Upper Egypt, that contained in the Ramesseum Glossary (Dyn. XIII—XVII) from which I published the list of Nubian Fortresses discussed in vol. III, pp. 184 foll. of this *Journal*. The towns of Upper Egypt are there enumerated in geographical order from Elephantine northwards; the name

'Iw-šnšn occurs in the following context: (200)  'Iwny Hermonthis, (201)  unknown, (202)  unknown, (203)  'Iw-šnšn, (204)  Gsy Kous, (205)  Gbtye Koptos, (206)  'Iwnt Denderah.

The historical import of the brief statements given by our stela is difficult to determine, the more so since we are ignorant both of the exact date and of the provenience (Thebes?). Destruction and restoration—these are themes, at all rate, which fit well into the picture of the earlier intermediate period which is gradually being built up, on the one hand from such literary texts as the *Admonitions* and the *Instructions of Akhthoy*, and on the other hand from such contemporary records as the inscriptions of Assiût and the stelae above mentioned. Perhaps the most probable conjecture is that the destruction of Yu-shenshen was an incident in the civil war between the Herakleopolitan "House of Akhthoy" and the princes of Thebes, and that its restoration was one of the early events in the following period of reconstruction; but our data are insufficient to admit of anything but the merest conjecture.

¹ The meaning of this passage is probably that Khenomso administered the taxes due from this town to the Theban rulers. The word for cattle is possibly to be read *sumut* on account of the fem. ending *t* which it shows. 'Ip is commonly used of "paying out" taxes; the literal meaning of *hew u het nb(t)* may be "the extension of all that is extended," but no such phrase is known to me.

THE MUMMY OF AKHENATON

By ARTHUR WEIGALL

The tomb of Queen Taia, in which lay the mummy believed to be that of the "heretic" king, Akhenaton, was discovered in January 1907, during the excavations which were being conducted by Mr. THEODORE M. DAVIS in the Valley of the Tombs of the Kings at Thebes. Mr. DAVIS was a very charming American gentleman who, in his old age, used to spend his winters on a dahabiyeh at Luxor, and there became interested in Egyptology. In 1902 he gave a small sum of money to Mr. HOWARD CARTER, then Inspector-General of the Antiquities of Upper Egypt, in order to enable him to conduct some excavations in the royal necropolis, and in 1903 the tomb of Tuthmosis IV was discovered during the work carried out with this money. In the same year the tomb of Queen Hatshepsut was cleared out by Mr. CARTER, again at Mr. DAVIS's expense; and thus the latter became established, so to speak, as the banker behind the Egyptian Government's excavations in the famous Valley.

In 1904 Mr. QUIBELL took Mr. CARTER's place at Luxor, and continued these excavations; and in 1905 I was appointed Inspector-General, Mr. QUIBELL and I jointly working the tomb of Yuaa and Tuau early in that year. At that time Mr. DAVIS was paying for the actual excavations, but we, the Egyptian Government Department of Antiquities, bore all the other expenses, such as those of packing the antiquities, safeguarding the finds, and so forth. It is interesting to note that the total cost to Mr. DAVIS of the season's work which thus produced one of the greatest finds ever made in Egypt was about £80.

In 1906 I insisted that Mr. DAVIS should employ a proper archaeologist to conduct the work, under my supervision, and Mr. EDWARD R. AYTON was nominated. From that time onwards for the next few years these excavations were carried on in the following manner:—Mr. DAVIS paid for the actual excavations and was regarded as their nominal director; an archaeologist, paid by him, lived on the spot and conducted the work; I supervised it on behalf of the Government and officially took charge whenever any discovery was made; the antiquities found all went to the Cairo Museum, with the exception of a few objects given as souvenirs to Mr. DAVIS and now in the Metropolitan Museum of New York; the Government bore all working costs other than those of the excavations themselves; Mr. DAVIS paid for the publication of the annual volume; and we all united to give him the honour and glory of the discoveries, the work being deemed worthy of every encouragement in spite of the fact that its promoter was himself an amateur, and that the greatest tact had to be used in order to impose proper supervision on his work and check his enthusiastic but quite untrained interference in what he very naturally regarded as his own affair.

The work was being conducted in this manner when the tomb of Queen Taia was found. Mr. AYRTON was in charge, and officially handed over to me as soon as the discovery was made; but, for diplomatic reasons, I kept in the background, and to a great extent left the clearing of the tomb in his efficient hands, only keeping an eye on the work. When Mr. DAVIS published the results, he incorporated a short note by Mr. AYRTON, but preserved a strict silence in regard to my own part in the work; and I should like to explain that this was not in any way an ungenerous or unfriendly act, but was due to his very understandable objection to the restrictions which my Department rightly obliged me to impose upon him. I may add that, owing to some curious idiosyncrasy of old age, Mr. DAVIS entertained a most violent and obstinate objection to the suggestion that he had discovered the body of Akhenaton. He had hoped that he had found Queen Taia, and when he was at last forced to abandon this fallacy, he seemed to act almost as though desiring to obscure the identification of the body. He was still in a passionate state of mind in this regard when, a few years later, his brain gave way, and a tragic oblivion descended upon him.

Mr. DAVIS and Mr. AYRTON are now dead, and Mr. HAROLD JONES, who helped in the work, has also passed away. I am, therefore, the only surviving member of this little company of excavators, and the above explanation is necessary in order to make clear my own standing in regard to these excavations, and to give authority to the statements which I shall make later in this article.

In the following pages I want to show that there can be no doubt that the mummy found in the tomb of Queen Taia was that of Akhenaton; and it will therefore be best to begin by deciding, from the monuments and other historical evidence, the age at which this king died. The following arguments may be adduced:—

1. Akhenaton was married to Nefert-iti either before or soon after his accession to the throne. On the boundary stelae at El Amarna, dated in the sixth year of his reign, he was already the father of two daughters by her. What, then, is the likely age at which he would have become a father? The mummy of Tuthmosis IV, his grandfather, has been shown by Professor ELLIOT SMITH to be that of a man of not more than twenty-six years of age. That king was succeeded by his son Amenophis III who is known to have been married to Queen Taia before the second year of his reign. Thus both Tuthmosis IV and Amenophis III must have been married by twelve or thirteen years of age. Amenophis III was, according to the examination of his mummy by ELLIOT SMITH, about forty-five or fifty at his death; and, as he reigned thirty-six years, he could have been at most fourteen at his marriage. Akhenaton's daughter, Meryt-aton, born in the third or fourth year of his reign was married to Smenkhkare before the seventeenth year of the reign, *i. e.* at thirteen or fourteen. The Princess 'Ankhes-enpaaton, born about the eighth year of the reign was married at latest two years after Akhenaton's death, *i. e.* when she was eleven; and the younger princess, Neferneferu-aton, was married to the King of Babylon's son when she was probably not more than five or six.

Child-marriages such as these are common in Egypt even at the present day; and if Akhenaton was, in this regard, like his father and grandfather it may be assumed that he was certainly not older than fourteen when his first child was born. This would make him somewhere round about thirty at his death.

2. In the biography of Bokenkhons, High Priest of Ammon under Rameses II, we are told that that personage came of age at sixteen. Now Akhenaton was under the regency of

his mother during the first years of his reign, as the Tell el Amarna letters and the Wādī Hammāmāt inscription prove; and one may thus assume that he was then under age. If, as seems probable, the great changes in art and religion began when he came of age, say in the third or fourth year of his reign, he would be just about thirty at his death. In this regard it is worthy of note that the Caliph El-Hākim was sixteen when he issued his first religious decrees.

3. When Ynaa and Tuau were buried, probably quite late in the reign of Amenophis III, since both were of an advanced age according to Professor ELLIOT SMITH, that king, and Queen Taia, and two of their daughters gave presents of funeral furniture, but there is no mention yet of a son. Nor have we any evidence of Akhenaton's existence until late in the reign, when his marriage to Tadukhipa of Mitanni was arranged. On the Medinet-Habū colossus three of Taia's daughters are shown, but there is no reference yet to a son. We should surely have some mention of him had he been living during the main years of his father's reign; and the inference thus is that he was still young at his father's death.

It is to be noted that he was not the last child born to Queen Taia, the little princess Bakit-aton being still young in her representations at Tel el Amarna.

4. Amenophis III. seems to have been in ill health during the last years of his reign, for on two occasions the King of Mitanni sent a miracle-working statuette of the goddess Ishtar to him in the hope that it might cure him. And there is the curious fact that Manetho gives only thirty years for his reign, whereas there is contemporary evidence that he reigned for thirty-six, the explanation being, probably, that he was unfit to govern during the last six years of his reign. Yet his son did not assume office, and the power evidently remained in the hands of Queen Taia. Akhenaton, therefore, must have still been very young; and even when he came to the throne the Tell el-Amarna letters show that his mother had still to be consulted in affairs of state. On the other hand a letter from Dushratta, docketed in the thirty-sixth year of the reign of Amenophis III, refers to Tadukhipa as being already married to Akhenaton, which indicates that the boy was twelve or thirteen by then. This would make his age at his death, seventeen years later, just about thirty.

In view of the above arguments I do not see that it is possible to suppose that Akhenaton was more than thirty years of age at his death. On the other hand there is at Oxford a fragment which shows the king celebrating his *heb-sed*, or Jubilee,¹ and which, therefore, at first sight indicates that he was much older. I do not think, however, that anything definite can be deduced from the occurrence of this festival. The *heb-sed* festival was generally thought to have been held after a king had reigned thirty years; but Professor SETHE has shown that it was more probably a festival held thirty years after a king had become heir to the throne. Now Akhenaton was heir immediately on his birth, and, if SETHE is right, the celebration of the jubilee would thus only indicate that he was at least thirty years of age at his death, a fact which is in accord with the above arguments. There is nothing on the Oxford fragment to indicate the date at which this jubilee occurred, but the fact that a "High Priest of Akhenaton" is mentioned thereon suggests that it belongs to the last years of the reign, since this looks like a late and advanced development of the Aton religion. EDUARD MEYER however, has pointed out that Tuthmosis II, whose mummy shows him to have died before he was

¹ *Journal* V, 61. See the note appended to the present article.

thirty, seems to have celebrated his Jubilee twice. Akhenaton may thus have held this festival at an equally early date.

The mummy which we found in the tomb of Queen Taia, and which rested in a coffin undoubtedly belonging to Akhenaton, was sent by me to Professor ELLIOT SMITH in Cairo for examination. I may mention, in order to debar any possible suggestion of confusion or mistake in regard to the body, that I soaked the bones in paraffin wax so as to preserve them and that the bones examined by ELLIOT SMITH were thus distinguished. His report on them was published in his catalogue of the royal mummies in the Cairo Museum.

In regard to the age, after an exhaustive examination of the condition of the skeleton, he comes to the conclusion that although many of the data suggest an age of about twenty-six years, "no anatomist would be justified in refusing to admit that this individual may have been several years younger or older than this estimate"; and he goes on to say that if the historian can produce proofs to show that Akhenaton was as old as thirty at his death, the anatomical evidence which suggests an earlier age would have to be considered too slight to weigh against that conclusion. Thus, so far as the age of the body is concerned, the mummy may be regarded as fulfilling the conditions necessary for its identification with Akhenaton.

As to the physical features, the following facts from the report are important. (1) The configuration of the upper part of the face, including the forehead, is identical with that of Akhenaton's maternal grandfather, Yuaa. (2) The jaw is typically Armenoid, as might be expected in view of the fact that Akhenaton's paternal grandmother was Mutemua, a princess of Mitanni. (3) The projection of the upper incisors is similar to that found in many members of the royal family of the XVIIIth Dynasty. (4) A curious and unusual bony ridge passing from the nasal spine to the alveolar point in this skull occurs also as a peculiarity of the skull of Amenophis III. (5) There are points of resemblance to Amenophis III, also, in the molar teeth. (6) The general structure of the face, and especially the jaw, is exactly that portrayed in the statues of Akhenaton.

These physical features prove pretty conclusively that the mummy is that of a male member of the royal family who had in his veins the blood both of Yuaa and Amenophis III, and the objects found with it prove that it is to be dated to the period of Akhenaton. Thus the body, so far as the known historical facts go, could only be that of Akhenaton. There is nobody else whom it could be, and this is a negative argument which must be given prominence throughout.

As to the evidence of the coffin and other objects found with the body. The coffin, now exhibited in the Cairo Museum, is that of Akhenaton without any question, for it is inscribed with his name and titles, on the top of the lid, inside the lid, and inside the shell. But there is one fact which, by some most mysterious circumstance, has been obscured. A great deal of rain-water had dripped into the tomb through a fissure in the rock, and the mummy-flesh and bandages had rotted away. But when we removed the lid of the coffin we found a band or ribbon of thin gold foil which had evidently passed down the front of the mummy outside the wrappings, and, at right angles to this, other bands which had passed round the body. When we had gathered up the bones and fragments and dust we found another similar band which had evidently passed down the back of the mummy. These bands, as I remember them, were about two inches wide and were inscribed with the titles of Akhenaton, but the cartouche was in each

case cut out, so that there was simply an oval hole in the band wherever it occurred. The cartouches of Akhenaton, it is to be noted in this connection, were likewise erased in the coffin-inscriptions.

These bands were sent to Cairo with the contents of the tomb, and there I saw them again in the work-room. Professor ELLIOT SMITH spoke to me about them, I remember, and he refers to them in his report in the Catalogue of *The Royal Mummies*, page 51. I also refer to them in my "Life and Times of Akhnaton," written a year or two after the discovery. Unfortunately I did not make a copy of the inscriptions; but the facts which I must ask the reader to accept without question are (I) that the bands had evidently passed around the mummy, at back, front, and sides; (II) that the cartouches had been cut out; and (III) that these bands safely reached the Cairo Museum.

I find, however, no reference to them in DARESSY's list of objects from this tomb published in Mr. DAVIS's volume on the discovery, nor in Mr. AYRTON's account of the find, printed in the same volume after being edited by Mr. DAVIS; and I am now not sure whether they are still somewhere in the Cairo Museum, or whether they have disappeared.

I must now give a brief description of the tomb and such of its contents as are pertinent, which should be read in connection with Mr. DAVIS's and Mr. AYRTON's account of the discovery published in the former's big volume.

The tomb was a rock-cut chamber approached by a sloping passage. It was similar to the tomb of Yuaa and Tuau, and was thus the sort of sepulchre one might expect to be made for a queen or other royal personage who was not actually a reigning sovereign. In it were the remains of a large boxlike wooden shrine or canopy which had evidently contained a coffin and mummy. The inscriptions leave no doubt that this was made for Queen Taia's burial by Akhenaton, and four foundation bricks are also inscribed with Akhenaton's name. A number of small objects inscribed with the Queen's name also belonged to this the original burial in the tomb. The sides of the shrine or canopy had been taken to pieces, and one side lay in the passage, as though an attempt had been made to remove it at the same time that the mummy of the queen was removed, but that the work had been abandoned owing to the narrowness of the passage.

Thus there can be no reasonable doubt that the tomb was made for Queen Taia, and that her body was removed at a later date, the large shrine or canopy being left behind because of the difficulty of taking it out, and some of the small objects being overlooked.

But in another part of the chamber we found the coffin of Akhenaton. Originally it had lain upon a bier, but this had rotted away and collapsed, and in the fall the mummy had been jerked partly out of the coffin, so that the head of the body projected somewhat from under the lid. Photographs of it as we found it are published in Mr. DAVIS's volume. Near the coffin were four canopic vases which will be discussed later.

Scattered about in the rubbish were fragments of small clay sealings inscribed with the name of King Tut'-ankh-amūn. The entrance of the tomb showed the remains of at least two closings up. There was part of an original wall of rough limestone blocks cemented on the outside, and above the ruins of this there was a second and more loosely constructed wall. On fragments of the cement were impressions of a seal representing a jackal crouching over nine captives — the usual seal of the necropolis.

The second wall had been partly pulled down and had not been built up again. Unfortunately Mr. AYRTON destroyed these walls without photographing them.

I interpret the above facts in the following manner:—Firstly, Queen Taia was buried in this tomb, but it was entered later by the agents of Akhenaton whose orders were to erase the name of Ammon wheresoever it was to be found. After Akhenaton had died and had been buried at El-Amarna, the court returned to Thèbes under King Tut'-ankh-amūn. The body of Akhenaton was then brought to the old necropolis of his fathers and was placed in this tomb of his mother. A few years later, when his memory came to be hated, the priests removed the mummy of Taia from the tomb which had been polluted by the presence of "that criminal," as Akhenaton was now called, erased the king's name, and left him the solitary and nameless occupant of the sepulchre.

Mention has been made of the four canopic jars. These obviously do not belong to Queen Taia; for the men who removed the queen's mummy from the tomb would not have left her heart, viscera, etc. behind. By the same token the jars belong to the mummy which we found in the tomb. The contents of the jars have rotted away, as had the flesh on the mummy, owing to the damp. Only such fragments of their wrappings as were well covered with bitumen are now to be found in the jars (see DARESSY on p. 24 of Mr. DAVIS's volume). On each jar there has been an inscription, presumably giving the owner's name; but in each case this has been entirely erased. The lids of the jars are each carved in the form of a royal head, wearing an ordinary wig which might be either that of a male or female, but having a king's single uraeus on the forehead. The queens of this period have a double uraeus, as may be seen, for instance, on the Sinai head of Taia, on the Userhat relief of that queen at Brussels, on her Medinet-Habū colossus now at Cairo, on the Faiyūm head of this period now in Berlin, on various reliefs of Nefert-iti, notably that shown in PETRIE's *History*, II, p. 230, and so forth. The fact that these canopic heads have no beard does not suggest that they are female, for I do not think Akhenaton is ever shown with a beard. The heads might well be portraits of Akhenaton executed somewhat early in the reign, and the characteristic lower jaw is quite noticeable in at least one of the four, as DARESSY also has pointed out.

I think the reasoning should follow these lines:—The canopics are not those of Taia, for if they were they would have been removed with her mummy, being an essential part of the mummy; and moreover there would have been a double uraeus on the forehead. But if they do not belong to a queen they must certainly belong to a king, and what king other than Akhenaton could they possibly represent? Canopic jars, however, would never be intentionally separated from the mummy whose heart, etc. they contained; and thus, if the jars are those of Akhenaton then the presumption is that the mummy must be that of Akhenaton also.

The fact that these canopic jars seem, by the style of the portraiture, to date from several years before Akhenaton's death is interesting, as suggesting that he had caused his funeral outfit to be made ready for him in anticipation. There are two other facts which lead to the same conclusion. Firstly, in the inlaid inscription which runs down the front of his coffin the word "truth" is written with the sign of the goddess, a sign which was not used in the late years of the reign. On the other hand, the inscriptions on the foot of the coffin, and on the inside of the lid and shell, show this word spelt out

in the later manner. Thus, we may suppose that the coffin was begun, though not finished, early in the reign. That it was finished later is also shown by the appearance of the later form of the cartouche of the god Aton on the uraeus at the forehead of the effigy on the lid. Secondly, amongst the debris of the mummy a necklace ornament and a piece of gold foil were found, each inscribed with the earlier form of this Aton cartouche. This shows that some parts, if not all, of the burial equipment were prepared several years before they were actually required. Such a procedure, however, is not surprising. A Pharaoh always caused his tomb to be prepared during his reign; and it is to be presumed, therefore, that the coffin and funeral outfit were also made ready at the same time. And, indeed, it may be argued that these proofs of the early date of the coffin and mummy-ornaments explain why the heads of the canopic jars show a rounder, younger, and less peculiar face than is seen in the later portraits of Akhenaton; and thus the identification is strengthened.

Over the face or head of the mummy we found an object in the form of a vulture, made of gold, and slightly curved so as to fit over the bandages. Mr. DAVIS and M. DARESSY call it a queen's crown, and M. MASPERO caused it to be labelled as such in the Cairo Museum. It is, however, no crown: a conclusion which is apparent from the fact that it was found with the tail and not head projecting over the forehead. It is simply a sort of pectoral of the usual form seen in the wall-paintings in the Theban tombs (for example that of Horemheb, No. 78) as part of a mummy's equipment.

It has been argued that the mummy of Akhenaton would probably have been destroyed in its tomb by those who came to hate the "heretic" King's memory. But those who think thus cannot be in touch with the mentality of the ancient Egyptian; for the destruction of the name of Akhenaton would actually have satisfied his most bitter enemies. The name, rather than the body, was the thing to be destroyed, in proof of which a very large number of instances might be quoted, as every Egyptologist knows.












To sum up:—the mummy lay in the coffin of Akhenaton, was enclosed in bands inscribed with Akhenaton's name, and was accompanied by the canopic jars of Akhenaton. It was that of a man of Akhenaton's age, the facial structure corresponds to the portraits of Akhenaton, and it has physical characteristics similar to those of Akhenaton's father and grandfather. How, then, can one possibly doubt its identity? Professor SETHE published last year in the *Nachrichten der K. Gesellschaft der Wissenschaften zu Göttingen* an article in which he comes to the conclusion that the mummy we found was perhaps not that of Akhenaton; but it is evident that all the facts were not marshalled before him when he set himself to question an identification which surely is not open to doubt.

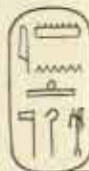
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[Reference is made by Mr. WEIGALL on p. 195 to the slab deposited in the Ashmolean Museum by Major GAYER-ANDERSON and published by me in the *Journal* vol. V, Pl. VIII, in an article entitled *The Jubilee of Akhenaton*. The German Egyptologists, having made great discoveries at Tell el-Amarna before the war, are scrutinising closely all the evidence for the history of Akhenaton's reign and his reform. SCHÄFER has written an important article on the slab *Die Anfänge der Reformation Amenhotp des IV* in the *Sitzungsberichte* of the Berlin Academy 1919, 477, and SETHE in his *Beiträge zur Geschichte Amenophis IV.* (*Nachrichten* of Göttingen, 1921, 101—130) has a valuable note upon the subject on p. 123. The chief but not the only new point insisted upon by these scholars is that the slab was engraved before Amenophis IV. changed his name, and

that his cartouche was altered upon it subsequently. The photograph strongly supports their view, which I accepted without hesitation: I have now closely examined the original, Mr. LEEDS kindly taking it out of the case for the purpose, in the hope of verifying or discovering some details in this very important relic, and here I give the results supplementary to my first publication of it.

The sculpture is on a small scale. The photograph in the *Journal* is a reduction to $\frac{1}{3}$, the slab measuring only 54×23 cm. The dividing upright between the scenes represents a swing door, as BORCHARDT (quoted by SCHÄFER) has pointed out. At the left hand end behind the king are remains of a similar vertical band which may have represented another swing door, a pillar, or a wall: at the top corner at the other end too there seems to be a remnant of a similarly cambered band. The king is probably in roofless buildings or courts with the rays of the Sun streaming down upon him. The offerings on the left appear to be laid on a wooden stand with cavetto cornice. A very small figure of a man with beard and an indistinct headdress (which rather suggests a uraeus-crown) stands on a raised step facing the king; only one arm is shown, the hand crossing the cornice. The king here wears his short cloak in such a way as to leave the arms bare.

In the scene on the right, the king's arms are concealed by the cloak. Remains of red paint are here clear on the flesh of the figures, and perhaps the cartouches of the Aton show remnants of the same colour. The inscription over the king's attendant was probably arranged horizontally and not in two columns, and several portions can be seen of a horizontal line which probably was carried continuously above   . The cartouches of the Aton at the right hand end were followed by "in the House of Rē" in Southern On (Hermonthis)". We now come to the crucial point in regard to the date, namely the second cartouche of Akhenaton. SETHE detects here traces of the name Amenhotp, and SCHÄFER sees at the end part of the epithet   which was distinctive of Amenhotp IV in the early years of his reign. A close examination of the original shows the  deeply cut, followed by a remnant of a vertical line that might have been : it also shows indications of  (rather than ) below the  of Aton. The position of these remains suggest that the cartouches were originally much shorter, beginning considerably lower than at present, and that the left hand cartouche read but the surface is not cut away and indeed there is really no indication of erasure. If this earlier cartouche ever existed, it must have been engraved very shallow, except the . The thing is a puzzle. Bad scratched surface and careless engraving are characteristic of the whole of the sculpture and one is tempted to look upon the hieroglyph-like markings in the cartouche as casual mistakes. But they are curiously appropriate to the older cartouche; and, on the whole, I cannot but agree that the sculpture belongs rather to the earlier than the later years of Akhenaton's reign. How the "Jubilee" can be reconciled with this dating is a matter for further investigation. Mr. WEIGALL has given his evidence as to the identity of the supposed mummy of Akhenaton, and Professor ELLIOT SMITH bears witness as to its age at death. Professor SETHE has provided a theory as to Jubilees which accords with the known evidence in other cases, but does not admit a Jubilee for so young a man as the mummy implies. And there for the present stands the conflict of evidence. *F. Ll. G.*





a



b

PLAQUE BELONGING TO G. D. HORNBLOWER, ESQ.

SOME HYKSOS PLAQUES AND SCARABS¹

By G. D. HORNBLOWER, B. A.

The large plaque shown on Pl. XIX is of schist with traces of glaze now turned brown, and measures 105 mm. in length, 73 in breadth and 20 in thickness. It has a broad groove round the edge between the faces, and is bored through on its long axis as if it were modelled from a smaller plaque made to wear. It was bought at Luxor at the end of the war, but there is no indication of its place of origin.

The carving and treatment of the bull on the one face and the gazelle on the other, show grace and sympathy with animal life. The subject in *a*, a lion pulling down an animal, is to be found similarly treated among the hunting scenes of the Eleventh and Twelfth Dynasties at Beni Hasan² where, however, the victim is a bubale in one case and an ibex in the other



Fig. 1.

two, while on the plaque it is a bull with long horns, suggesting the domesticated animal although its slender build would fit the wild cattle of the Egyptian monuments. But the great crested bird harrying the gazelle is strange indeed. The motive is reminiscent of the



Fig. 2.

symbol of the Assyrian god Enurta, the eagle (often lion-headed) with outstretched wings, which grips a lion or a deer in each of its talons. Upon seals there are instances of the Assyrian eagle showing a treatment of the wings as on the plaque, and in one case, where he is grasping lion-headed snakes instead of the usual deer or lions (Fig. 1)³, he closely resembles that on the plaque in wings, tail and crest.

The type of the crested eagle, if mainly fanciful on this gigantic scale, may be connected with such tropical eagles as the *Spizaetus* and the African *Lophoactes* which may have had a range different from their present one in ancient times⁴. It may also

¹ The objects illustrated in this article, except those in Pl. XX, figs. 1, 3, 4, Pl. XXI, figs. 6, 12, 24—26, are in the writer's possession.

² NEWBERRY, *Beni Hasan I*, Pl. XIII; II, Pls. IV, XIII.

³ JASTROW, *Bildermappe zur Rel. Bab. und Assy.*, No. 136.

⁴ My thanks are due to Mr. GRIFFITH for this suggestion and for several of the parallels quoted in this paper.

be compared with the type of the peacock(?) which occurs in Minoan art in a shape that with its crest, outstretched wings and long tail bears a considerable resemblance to the former; the beautiful relief showing it, carved in ivory, was found at Palaikastro and belongs to the period Late Minoan I (Fig. 2).¹ Finally, we may note in the scene on the plaque the symmetrical pair of concentric semi-circles at the base, probably indicating that the action is taking place on desert hills.

The plaque may therefore be said to have on one side affinities with Twelfth Dynasty art and on the other with Late Minoan I, which is contemporary with the early XVIIIth Dynasty. There can be little doubt that it belongs to the Hyksos period, for a characteristic of the scarabs of that period, as shown for example, in Professor NEWBERRY's book on *Scarabs*, Pl. XXV, is the seemingly meaningless manner in which hieroglyphs are scattered on the background, as was done in this plaque. Another characteristic is the frequency of animal subjects which, apparently, do not occur in earlier times, though common enough in the scarabs of the XVIIIth and following Dynasties².

As to the little cynocephalus ape looking on as if in surprise at the lion-scene, we may note its occurrence also on the Syrian cylinder from Egypt published by Mr. SIDNEY SMITH below, Pl. XXIII, fig. 3.

In the British Museum is a smaller plaque of the same shape, No. 29442, exhibited in case G, No. 286, and figured here on Pl. XX, fig. 1. This is blue-glazed and the background still retains its colour. It is grooved round the sides like the larger plaque but is bored with two holes parallel to the short axis. One face shows a hunter with bow and arrows shooting a gazelle; the subject on the other face is obscure, a man bending over and killing some animal, or perhaps a lion devouring a contorted human body, as appears if it is turned the other way up. The workmanship is rough indeed, and the drawing primitive, but with a vigour of its own as if the artist understood and enjoyed, but lacked technical equipment. There is an unusual amount of hatching on the surfaces and the technique seems to me quite unlike Egyptian work before the Hyksos period, but shows affinity with several scarabs of the Hyksos group represented in NEWBERRY, Pl. XXV, especially No. 26. Here we have what appears to me to be a foreign technique and a new class of subject for objects of glyptic art, namely the picturing of wild animals and of hunting episodes, prompted, it would seem, not by religious or magic motives but by a sporting, perhaps even an aesthetic feeling towards the beasts themselves.

Another plaque shown in Pl. XX, fig. 2 and measuring 3×2 cm. is of schist, grooved round the sides like the preceding ones and bored on its long axis. The blue-green glaze that covered it still remains in the protected incised lines. The workmanship is admirable, showing the firm clear line of scarabs of the Twelfth Dynasty, but while one face exhibits Egyptian royal and religious symbols—the royal falcon beneath the winged disk³—the scene on the other face, a lion attacking an antelope, is similar to that on the large plaque. The action has a child-like placidity, neither animal appearing much concerned in the matter, as in the hunting scenes in the Beni Hasan tombs; it seems as if ancient artists, Egyptian and others, were often interested only in the shapes of

¹ DAWKINS, *Excavations at Palaikastro* in *Annual of the British School at Athens* XI, p. 285 fig. 14a; BOSSERT, *Alt-Kreta* fig. 85.

² A small scarab, however, in the University College collection on which is engraved, sketchily but in fine line, a lion of massive parts, is attributed to Dyn. IX—X.

³ Compare the scarab in NEWBERRY, *Scarabs*, Pl. XXV, No. 16.



1



2




3



4

PLAQUES AND CYLINDERS

the animals, representing them, may I say, statically and not dynamically. The branch, bush or reed may be a suggestion of jungle. The hatched basket  on the other side is very frequent at this period as a basal support or filling.

We next turn to the scarabs on Pl. XXI. Figs. 1 to 5 show lions and crocodiles and cobras; fig. 4 is of scaraboid form with characteristic rope-decoration on the back.

A feature to note is that the lion is often represented with his tail flourished high behind or over his back, and heavily tufted, the engravers in some cases having converted it into a cobra. In several scarabs the lion turns his head back, as in NEWBERRY Pl. XXV no. 19 (cp. No. 40151 and others in the British Museum collection).

An exceptionally fine lion scarab of this period is shown in fig. 6, taken from the cast of a specimen in the collection of Sig. DATTARI of Cairo, to whom my thanks are due for it. The cutting is superb, going down deep and straight, and the detail is very strong and free. The filling of the spaces with mere disks is very unusual.

Fig. 7 is somewhat similar, in finer line cut fairly deep, but it has the usual scattered hieroglyphs. Apparently the artists disliked bare spaces as did those of the later Assyrian decorative designs (carried on, in one line, to early Greek and, in another, to Saracenic times). On the loins of the lion here there seem to be indications of a belt or harness, as of a tame animal.

Pl. XXI, fig. 23 illustrates a non-Egyptian scarab obtained at Alexandretta; it shows a lion with head turned back walking before a background of reeds drawn in simple outline. This reminds one strongly of the scene on the walls of Medinet Habû of Ramesses III's lion hunt amongst reeds on the road to Syria.¹

Domestic cattle may furnish a figure occasionally (cf. NEWBERRY, No. 7 of Pl. XXV and WARD, *The Sacred Beetle*, Pl. XIV, No. 288).

I now turn to the human figures. Fig. 8 shows a man kneeling, holding a cobra, with two others in the field. It is a conventional Egyptian figure but the careful hatching, the general style and the shape of the scarab, indicate the Hyksos period. The line is clear and the cutting deep. Fig. 9 may be compared with it, both men and ibex being of the conventional type, cut deep and carefully hatched.

But the human figure is usually treated with much less conventionality, commonly in clear, simple outline, sometimes with hatching. In figs. 10 and 11 are good examples, holding a lotus and palm branch respectively. With them may be compared No. 1 of NEWBERRY, Pl. XXV, No. 509 of WARD, Pl. XIV, and my fig. 12 from the British Museum collection, No. 40506, showing a man kneeling and holding before him a bow, the hieroglyph of a warrior, drawn with great simplicity and no little vigour, one would almost say an ancestor of the warrior of early Greek art. Fig. 13, a kneeling man with palm branches, also a version of a hieroglyph, namely *hah* "a million," is simply sketched in line on a scarab of an olive green, slaty stone, and perhaps signifies, with the *nb* sign, "untold riches."

Another type of abrupt novelty and not found after this period is exemplified in figs. 14 and 15 (cf. NEWBERRY, Pl. XXV, Nos. 5 and 6). These may represent some non-Egyptian deity, a mother-goddess, perhaps the equivalent of early Hathor, i. e., Ishtar, or perhaps 'Anath, judging from the Hyksos royal name, 'Ant-her, known from

¹ MARIETTE, *Voyage*, Pl. 54.

a scarab¹; or again they may be connected with the female figurines in terra cotta &c., placed in graves from pre-dynastic times down to the Twelfth Dynasty, or others dedicated in Hathor temples about the beginning of the New Kingdom². The scarab figures are in most cases nude, like our No. 14, which is closely paralleled on the cylinder Pl. XX, fig. 3 (see below); compare also NEWBERRY, Pl. XXV, Nos. 5 and 6. But fig. 15 is clothed, as in NEWBERRY, Pl. XXV, No. 17, as is the front-faced figure in the cylinder just mentioned, whose dress, however, is more complete.

Such nude figures survived the Hyksos period in the form of mirror-handles. Pl. XXII represents a bronze mirror of the Seventeenth Dynasty: the woman holds her hand to her breast and in it a vague object that may represent a dove. Similar mirrors in the Cairo Museum with handles of bronze or ivory are illustrated in Pls. X to XIII of BÉNÉDITE, *Catalogue of Mirrors*; unfortunately in no instance can the object held against the breast be clearly identified.

Hawk-headed men are frequently depicted on Hyksos scarabs, v. figs. 16—18 and Pl. XXIII, fig. 6, similar to WARD, Pl. XIV, No. 93. Compare also Ward No. 323 on the same plate, British Museum No. 26988 exhibited in Case G under No. 1373 and No. IIA on Pl. XI of PETRIE, *Scarabs and Cylinders with Names*, which seems to me typically Hyksos in style and not necessarily to be connected with Antef V. The most obvious interpretation identifies them with Horus, or at least, with priests or temple attendants wearing Horus masks. Temerity might even suggest a connection with the eagle-headed winged creatures on the slabs from Konyunjik sculptured with scenes from the Assyrian New-Year Festival referred to by Mr. SIDNEY SMITH in his article on *Marduk, Ashur and Osiris* (above p. 43) and in his article on the cylinder (below p. 207). Fig. 16 shows a finely cut scarab of good blue glaze with a palm leaf or reed decoration on the pro-thorax, and a plant by the advanced foot of the figure who holds up an adoring hand before symbols of Hathor and the moon, with which this goddess is closely connected. This Hathor symbol is a favourite subject on Hyksos scarabs, v. NEWBERRY, Pl. XXV, Nos. 13, 14, 15, 28 and 30. Figs. 17 and 18 carry staves and wear, like No. 16, the conventional stiff apron of high personages. Fig. 19 is strange—a lion seated, facing a kneeling hawk-headed man who stretches an arm to the lion; has this a ritual signification with the lion as king and the man as priest, or is it a mere artist's fancy? Fig. 20 shows the hawk of Horus with three cobras.

Finally, mention may be made of monsters, which on scarabs appear for the first time in the Hyksos period. These include the Sphinx, see fig. 21 and NEWBERRY, Pl. XXV, 7—10 (in No. 9 he is fully royal), and the griffin, see NEWBERRY, Pl. XXV, No. 11. Though the king is represented as a griffin in the Fifth Dynasty³, this mightiest of all animals is not again met with till its appearance among the desert creatures in the tombs at Beni Hasan⁴.

Traces of this Hyksos art in scarab engraving are fairly frequent till the middle of the Eighteenth Dynasty, as in No. 8 of NEWBERRY, Pl. XXVII with the name of Thutmosis I, and in the British Museum No. 37740 (Case A 370; v. also No. 381) and the unexhibited Nos. 30628, 28785 and 40753. A specially noticeable example is the

¹ FRASER, *Catalogue of Scarabs*, No. 180.

² GRIFFITH, *Oxford Excavations in Nubia in Liverpool Annals of Archaeology* VIII, p. 87.




³ BORCHARDT, *Das Grabdenkmal des Königs Sa-hu-re* II, Bl. 2.

⁴ NEWBERRY, *Beni Hasan* II, Pls. IV, XIII.



SCARABS (scale $\frac{3}{4}$)

cylinder of Amenophis II (NEWBERRY, Pl. VIII, No. 6). On a scarab in the University College collection, in the compartment labelled "Fighting," is a spirited representation of one man felling another with an axe, done in fine thin line resembling that in my fig. 13. Similar workmanship is found in scarabs of the beginning of Dyn. XVIII, but the freedom of the scene recalls the Hyksos spirit, the fighting is rendered for its own sake, free of paraphernalia, royal or religious; again, as in fig. 15, one is reminded of early Greek art. The scarab of fig. 22 is dated to the Seventeenth Dynasty by style and workmanship. The subject is unusually realistic, the upper register showing a man on his knees attacked from behind by a lion, and the lower a hippopotamus. Meaningless signs are engraved in the field, and the marks of Hyksos influence are evident.

The general characteristics of the technique are two, usually blended:—first, rough drawing, usually but not always vigorous; second, firm, sweeping outline. In many cases, as the illustrations show, the drawing is of a character new to Egypt and to my mind due to foreign influences. The strong line seems, on the other hand, to have originated in the glyptic art of the Twelfth Dynasty as shown in the scarabs and cylinders decorated wholly or in part with scroll designs, good examples of which are figured in NEWBERRY, Pls. XIX and XX and Pl. VII, Nos. 8 and 9. The manual skill necessary to produce these beautiful curves and loops is admirably developed in the succeeding age. I would draw special attention to my fig. 10, where the sureness of effect and the economy and strength of line can be well compared with the work of the ancient Greek vases. A very interesting example is a cylinder in the British Museum, No. 15700, exhibited in Case G, No. 228, and here reproduced in Pl. XX, fig. 3. The figures upon it are in pure outline with a little hatching, well ordered. They are, on one half, a hawk-headed male kneeling on a , a clothed woman standing represented in full face, a man standing on  and a hawk-headed male standing; on the other half, a crocodile-headed man kneeling on a  and holding a palm branch, a hawk-headed male standing with palm branch, a crocodile-headed male, and a nude female full-faced with arms symmetrically down the sides. These figures may represent deities, Horus, Sebek and Hathor, the last both clothed in the Egyptian style and nude as in Mesopotamia¹.

Another British Museum cylinder, No. 30722, has been published in NEWBERRY, Pl. VII, No. 12 but is repeated here in Pl. XX, fig. 4 as the photographic reproduction makes clear its peculiar style. With it may be compared the cylinder No. 153 in FRASER, *Catalogue of Scarabs*. The hieroglyphs upon the former suggest the name of Antef V, Kheper-nub-re', which would date it to the intermediate period between the XIIth Dynasty and the Hyksos. BREASTED, *History of Egypt*, p. 212, brings out well the connection of this king with the foreign invaders of Egypt, and the cylinder illustrates unmistakably the beginning of new influences in Egyptian glyptic art. Their full development in cylinders is shown in the Khyan examples, NEWBERRY, Pl. VII, Nos. 7 and 10.

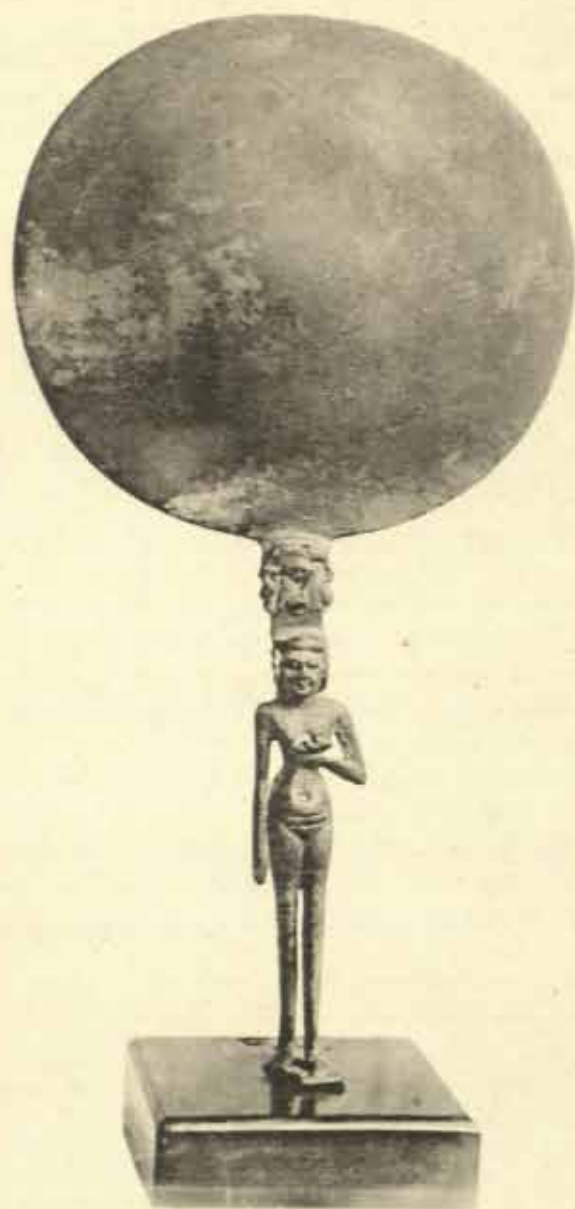
Addendum (1). In the British Museum collection are many scarabs of the types shown in this article as Hyksos, mostly of rough make and white, obtained largely, as Sir ERNEST BUDGE kindly informed me, from the Delta. For the benefit of students who may be interested in the matter, I give some numbers. In Case G, 27005 (287), 27952 (288), 17304 (289), 21852 (304), 28154 (305), 27323 (306), 45531 (284 bis); (the numbers in

¹ See also Pl. XXI, Nos. 14 and 15.

brackets are the case serial numbers). In Case H, 40766 (1178) and case numbers, 574—584, 590—602, and many of the following up to 790. Not exhibited:—Nos. 5388 (Anubis and two crocodiles), 4151, 40165, 43555, 42684, 42935 and 48748.

Addendum (2). In looking for scarabs of Hyksos style I found three interesting specimens, perhaps of much later date, shown here in figs. 24—26. They are all in the British Museum, Nos. 53584, 38863 and 46745. The first represents a vase on a wooden stand flanked by winged uraei; and the other two show vases of quite foreign types, made undoubtedly of metal. I do not venture to offer suggestions, but have reproduced them as likely to interest students.

Fig. 27 is a scarab of the Treasurer Har, a personage whose name appears more commonly than any other on scarabs (*e. g.*, PETRIE, Pl. XV, Bu and XVII Bt to CE; FRASER, *Catalogue of Scarabs* Nos. 68 and 89); it is included here only on account of its ornate back.

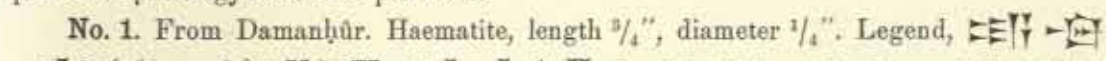




BRONZE MIRROR

BABYLONIAN CYLINDER SEALS FROM EGYPT

By SIDNEY SMITH, M. A.

The five cylinder seals shown on Pl. XXIII belong to the collection of Mr. G. D. HORN-BLOWER, to whom I am much indebted for permission to publish them. Four are known to come from Memphis, and it is of some interest to note that they are of early date. Many Babylonian cylinder seals must have been found in Egypt, and a complete publication of them would doubtless reveal many matters of interest, both as to the periods at which intercourse between the Nile and Euphrates valleys was most lively, and as to particular points in philology and cult practices.

No. 1. From Damanhūr. Haematite, length $\frac{3}{4}$ ", diameter $\frac{1}{4}$ ". Legend,  *Ia-ak-ba-bi* (? or *hi*)-e-da, arad (ilu) Adad. Scene: A palm tree, the lower branches lopped, the upper branches looped together on the outside with twigs. On either side, a figure of an Egyptian monarch wearing the Atef crown and ram's horns, holding in his right hand  and in his left hand .


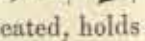
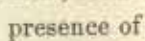
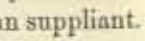
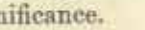
The owner's name, *Iakba-bieda* or *Iakba-hieda* is puzzling. The fourth sign is cut in an ambiguous way, so that it is possible to read it as either *bi* or *hi*. I prefer the reading *bieda*, since this element may be paralleled in the second element of such names as *Ian-bi'di*, *Atar-bi'di*; I know no parallel for *hieda*. The first element, *iakba*, I am inclined to believe is a verb, so that the name consists of verb + noun, a common type; but I am unable to explain the meaning. That *Iakba* is to be connected with *Jacob* is highly improbable.


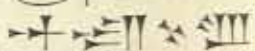
Although *Iakba-bieda* declares himself "a servant of Adad," the weather god is not represented on the seal. This absence of the god actually named as the patron is not unusual in cylinder seals. The scene actually depicted is sufficiently surprising, in that it provides an exact Egyptian counterpart for the scene most frequently depicted on Assyrian and Persian cylinder seals, namely the tree, with a royal figure on either side, obviously engaged in some cult practice. The best known examples of the same theme are of course the slabs from the frieze of Ashurnasirpal's palace at Calah.

There are three possible explanations of this scene. 1. That the Egyptian king actually performed a cult ceremony with a tree which closely corresponded to the cult ceremony performed by the Assyrian king. 2. That the theme has merely been adapted by the engraver, who has substituted a figure of the Pharaoh for that of the Assyrian king. 3. That the seal belongs to the period of the Assyrian occupation, when Psammetichus (who also bore the Assyrian name *Nabu-shezibanni*) may have adopted Assyrian cult practices to please his overlord, Ashurbanipal. Of these three explanations, the first seems to me correct.

The question of dating cylinder seals is always a difficulty; even the writing, which is stylised, affords little help. Sir E. A. WALLIS BUDGE has kindly pointed out to me that the crown with the ram's horns points to a late date, from the 26th Dynasty onwards. The form of the crown on this seal for instance closely resembles that painted on the 28th Dynasty coffin 6693 A (British Museum, Second Egyptian Room). I am inclined to date the seal 650—600 B. C.

Assuming that the ceremony here represented is actually Egyptian, and not merely an artistic or temporary adaptation, this cylinder is an important document for the study of comparative religion. Mr. HORNELOWER has kindly pointed out to me a few instances in which the tree occurs on scarabs of the Hyksos period. By far the most striking is B. M. no. 51902 (figured on the Plate), in which the theme strongly resembles Assyrian subjects. This tree is to be distinguished from the Hathor pillar, and it would be interesting to learn of other examples of it on Egyptian scarabs and cylinders. The seal here published was certainly made in Egypt; the style of the figures seems to prove that. The owner was probably a Syrian.

No. 2. From Memphis. Green schist, length $\frac{15}{16}$ ", diameter $\frac{1}{2}$ ". Legend,      (ilu) Šu-kur-i-li mar A-hu-ṭabu. Scene: A god, seated, holds in his hand a vase from which water springs; above is a crescent; into the presence of the seated god, a figure wearing the divine horned head-dress introduces a human suppliant. Before the suppliant are two devices of which I do not understand the significance.

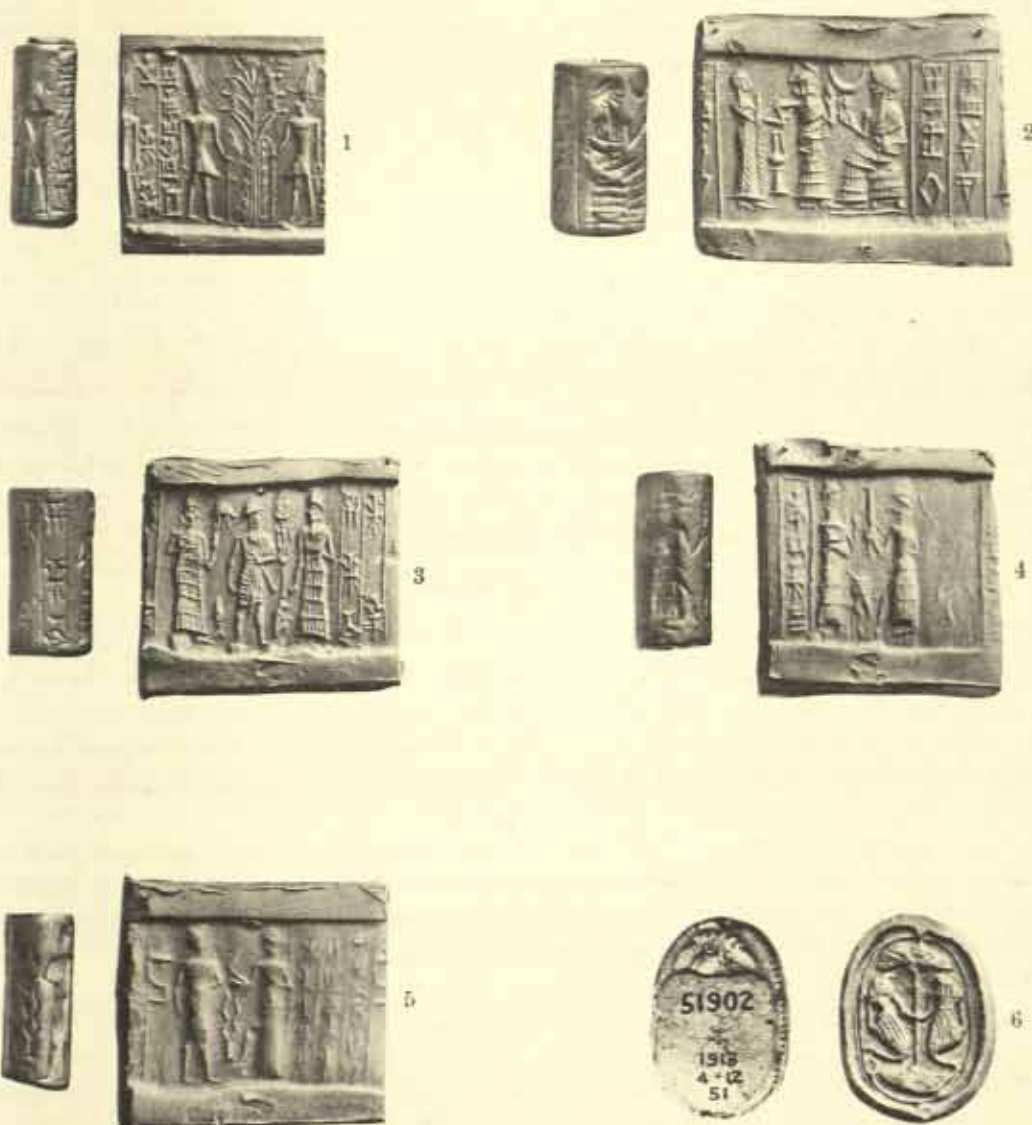
Mr. HORNELOWER informs me that Professor SAYCE has suggested to him that (ilu) Šukur in the owner's name is the name of the Egyptian god Seker . This seems extremely probable; for it is no use citing as a parallel the Babylonian  which is not only written differently, but seems to mean "goddess of (the city) Shuruppak," and is known to be an epithet of Ninlil¹. If the identification with Seker be correct, the father, A-hu-ṭabu may have come to Egypt from Mesopotamia, and given his son a theophorous name of a common kind, in which the god's name was Egyptian,—"Seker is my god."

The scene depicted is a very common one on cylinder seals, especially on those of the period of the Third Dynasty of Ur, B. C. 2250—2150, to which period I believe this seal belongs. The seated god is Ea, the lord of the deep, the god to whom the realm of the primeval Apsu was assigned. He is sufficiently distinguished in this case by the vase with flowing water². The god who introduces the suppliant is Marduk. This seems fairly clear from the fact that in some instances, e. g. WEBER, *Orientalische Siegelbilder*, vol. II, no. 452, DELAPORTE, *Catalogue des Cylindres Orientaux* (Musée du Louvre) I, Planche 5, no. 2; where the seated god is certainly Ea, the intercessor is two-headed³. The suppliant is the owner of the seal himself. The scene represented is that often mentioned in the class of literature called incantations. Marduk learns that some devil or sickness is abroad, reports the matter to his father Ea, and says, "What shall this man do? he does not know whereby he may be relieved." Ea answers, "O my son,

¹ C. T. XXIV 5, line 8.

² On the significance of the vase with flowing water see ALBRIGHT, "The Mouth of the Rivers" in *American Journal of Semitic Languages*, vol. XXXV.

³ See *Journal*, April 1922, p. 42, note 2.

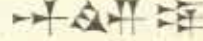


BABYLONIAN CYLINDERS, ETC.

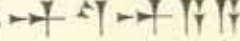
1-5. Cylinders from Egypt. 6. Scarab in the British Museum

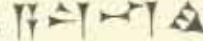
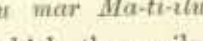


what dost thou not know, what more can I give thee? O Marduk, what dost thou not know, what can I add unto thy knowledge? What I know, thou knowest also. Go, my son Marduk . . .," proceeding with the specific means to be employed for the relief of the suppliant¹.

It is interesting to notice that the proprietor of the seal has chosen this scene, in which Ea, the deity of the infernal waters, figures, since his own name includes that of an Egyptian god who also was a deity of the world of the dead. Since the four Duats were all passed through in a boat², Seker, the lord of the second Duat, may have been associated with water, like Ea. Again, the interest of this seal is very considerable. Apparently, the son of a Syrian, born and settled in Egypt, owns a Babylonian cylinder seal of good workmanship, dating from 2250—2150 B. C., on which is depicted a well known Babylonian religious scene. To the present writer's mind, the seal can only have been of use to a man who perpetually needed it for sealing legal documents written on clay—in other words to a man employed in constant trade with Babylonia or Mesopotamia. Was Shukur-ili actually the agent of some Babylonian firm?

No. 3. From Memphis. Haematite, length $\frac{7}{8}$ ", width $\frac{7}{16}$ ". Legend,  (ilu) *Adad, mar Anim*, Adad, son of Anu. Scene: A divine figure, with four-horned head-dress, facing the god Amurru. Between the two figures are the full and crescent moon (or possible the sun and the moon), the forked lightning of the weather god Adad, and sitting monkey or ape. Amurru, the god of the Amorites, stands in a characteristic attitude holding a club in his right hand. Behind him are a pig and a fish; then another divine figure with the four-horned head-dress, with right hand raised.

This is a characteristic seal of the Amorite First Dynasty, 2050—1750 B. C. The peculiarity lies in the squatting ape, which may indicate the Egyptian god Thoth.

No. 4. From Memphis. Haematite, length $\frac{15}{16}$ ", width $\frac{7}{16}$ ". Legend, , (ilu) *Shamash (ilu) Ai*. Scene: Shamash, holding in his hand a sword, advancing; the goddess Ai facing him with both hands upraised. Between the two is an object which looks like a tripod with four cross pieces. The space left vacant was intended for the owner's name; this has not been filled in, owing possibly to the poverty of the purchaser. Period of the First Dynasty.

No. 5. From Memphis. Haematite, length $\frac{15}{16}$ ", width $\frac{3}{8}$ ". Legend, , , *A-ka-na-ti(hi) ilu mar Ma-ti-ilu* *arad AN.AN.MAR.TU*. Above the first line is an erased line on which the scribe wrote the owner's name, but apparently made some error: traces of  . . .  can still be seen. Scene: Shamash, holding a sword, advancing; facing him is Amurru. Between them is the lightning fork of Adad.

I am unable to explain the owner's name. His father's name, *Mati-ilu*, is a good Babylonian name of the First Dynasty, to which period the seal belongs.

[The author of the above article having left England for the Near East has had no opportunity of correcting it for the press. In describing the cylinder No. 1 Mr. SMITH, an Assyriologist whose contributions to the *Journal* are highly valued, suggests that the

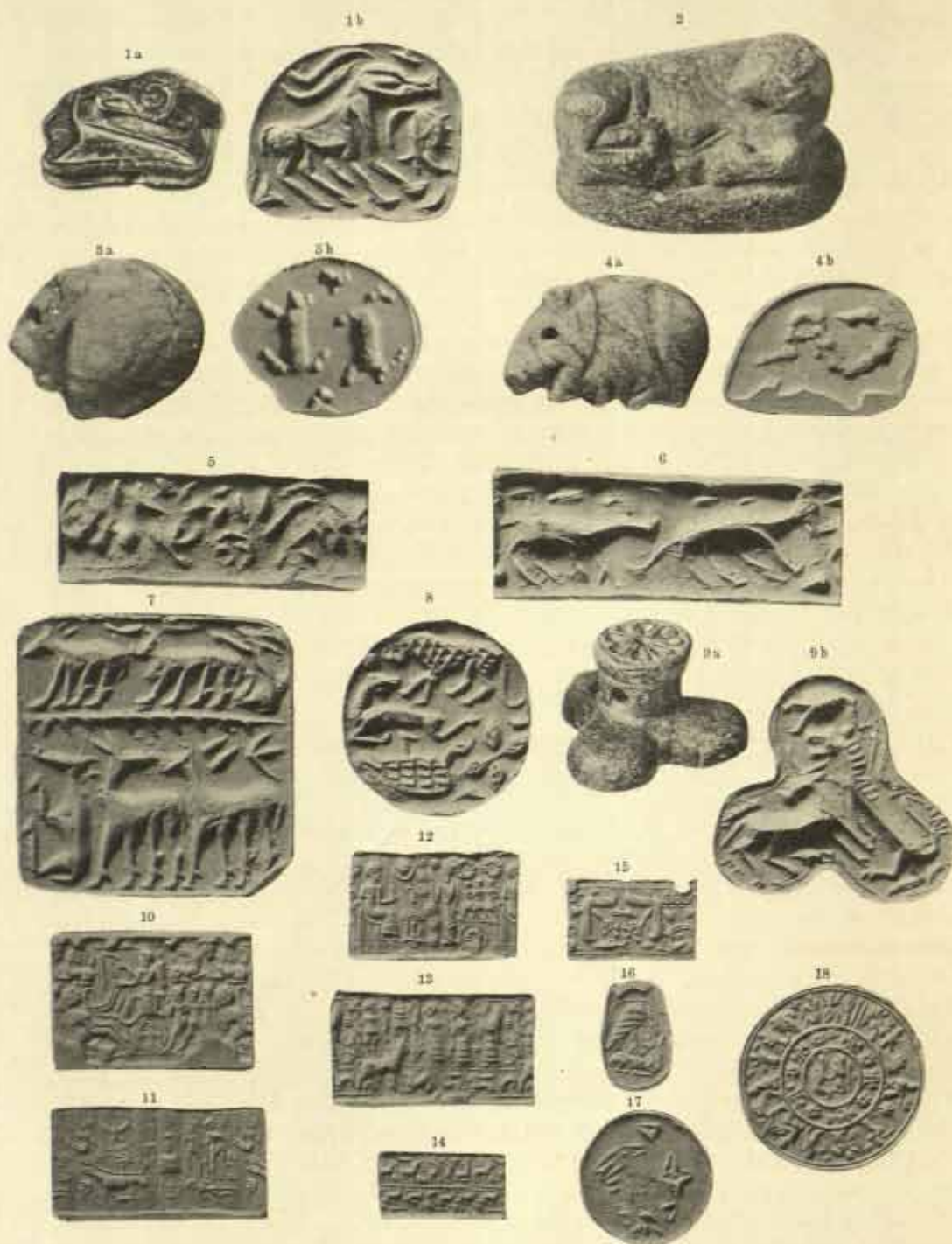
¹ See CAMPBELL THOMPSON, *Devils and Evil Spirits of Babylonia*, p. 93, et freq.

² BUDGE, *Egyptian Heaven and Hell*, III, p. 179.

scene depicted thereon represents a real Egyptian king performing an Egyptian ceremony of tree-worship. But I venture to think that Egyptologists would be unanimous in giving preference to either of the alternative explanations which he offers.

Mr. HORNBLOWER would illustrate No. 1 by the remarkable jasper cylinder of "Khondy" of "Syro-Mesopotamian" work (Petrie *Scarabs and Cylinders with Names* Pl. XIX; and he remarks that Professor SAYCE had previously figured some Babylonian cylinders from Egypt in the collection of Mr. F. LEGGE in the *Proceedings* of the Society of Biblical Archaeology for Dec. 1911 (vol. XXXIII, pp. 259—260). Readers of Mr. SMITH's article will be glad to have these references. Ed.]

ASHMOLEAN MUSEUM



Hittite Seals

ENGRAVED HITTITE OBJECTS

By D. G. HOGARTH, D. Litt., F. B. A.

In 1920 I published (in "*Hittite Seals*," issued by the Delegates of the Clarendon Press) the Ashmolean collection of engraved objects—roller- and stamp-seals, amulets, rings and weights—which, on one ground or another, seemed to me to fall into a distinct glyptic class. To this the term "Hittite," used with geographical, rather than racial or political, connotation, was attached. I am aware, however, that certain objects and groups, included in it, have been and are claimed for other glyptic classes, Elamite, Sumero-Accadian, Babylonian, Assyrian or Phoenician. I propose here to defend some of my ascriptions by the publication of other specimens, acquired by the Ashmolean since 1914, the date to which my catalogue was brought down; and I take the same opportunity to publish some other glyptic objects, undoubtedly Hittite, which have been added to the Ashmolean collection since that date, and also selected examples from a small collection now in the Metropolitan Museum, New York and formerly possessed by the late Dr. W. HAYES WARD, author of *Seal Cylinders of Western Asia*. The Direction of that Museum has asked me to publish these and has supplied the impressions from which the photographs on Plate XXV have been made. I have seen and made notes of the originals. A larger part of WARD's collection has come into the possession of Dr. NEWELL, Secretary of the Numismatic Society of New York.

A. ASHMOLEAN MUSEUM, OXFORD

1. (plate XXIV, nos. 1 a and b).

This object, of dark green steatite, in the form of a couched calf, is engraved on the base which is bored for suspension at right angles to the direction of the design. It is almost certainly a commercial weight (present weight, 32.65 grammes) representing four shekels. It was acquired by Mr. E. P. WARREN in 1919 as from Syria; and the elements and general character of the subject engraved on the base leave no doubt that it is "Hittite" (compare H. S., i. e. *Hittite Seals*, plates III, IV, *passim* and the quatre-foiled seal at Copenhagen, cited *ibid.* p. 63; for the form of the scorpion, which appears before the goat or antelope, compare H. S. pl. V no. 132). This "weight" is mentioned, but not illustrated, in a note in H. S. where, on p. 55, I referred to the question of the place of origin and the purpose of certain objects of similar forms but usually made of marble. They are to be found in most museums and have commonly been regarded as Elamite since the publication of the results of the French excavation of Susa (*e. g.* by SPELLEERS, in *Cat. des Intailles etc. des Musées Roy. du Cinquantenaire* pp. 79 ff.) PÉZARD speaks of "sceaux dont la partie supérieure . . . porte en ronde bosse des figurations de lions, de taureaux ou de moutons . . . que l'on n'a point retrouvés jusqu'ici en d'autres régions" (*Mém. Délég. en Perse* XII p. 79); and JÉQUIER testifies (*ibid.* VIII p. 2) that objects of

this class were found at Susa in a very early stratum, over 20 metres below the surface, and in company with sherds of the so-called Neolithic painted wares. According to DE MORGAN (*ibid.* VII, p. 50 and pl. XXI) a calf-shaped engraved object occurred in the foundation deposit of the Shushinak temple.

PEZARD says too positively that such objects have not been found outside Elam. This type of object was certainly made and engraved in Syria as well, and perhaps also in Eastern Asia Minor. A basalt object of calf form, probably a weight (159.72 grammes, reduced by weathering of the surface) and the equivalent of 20 shekels, was found in 1914 on the site of Carchemish (see Plate XXIV, no. 2); and, although there has been too little excavation in Syria and Asia Minor for completely satisfactory evidence of provenance to be forthcoming, the cumulative effect of the various data, which we have, leaves little or no doubt of the Syrian or Anatolian origin of several specimens. Two, purchased recently at Constantinople and now in the Ashmolean (Plate XXIV, nos. 3a and b and 4a and b) were said by their vendor to have been found in Cappadocia. Both are of marble; the lion-head, which weighs 17.35 grammes, is in form an exact counterpart of one found at Susa (*ibid.* VII, p. 53, fig. 92); the other in the form of a rat? (or pig?), which weighs 15.5 grammes, is unique in form. Both are engraved on the base (as are so many objects of similar types, as well as hemispheroids, cylinders, etc. found at Susa) in the rude style noticed in H. S. pp. 55—57. The abundance of Susan examples of this glyptic style raises, it must be admitted, a strong presumption that it was originally an Elamite style; and its use in North Syria, which admits of no doubt, may well be explained on the hypothesis of the early prevalence there of a South Mesopotamian (or perhaps genuinely Elamite) domination, cultural or political, or both. It has been remarked already by C. L. WOOLLEY (*Liverpool Annals* VII) that painted sherds of Chalcolithic Age found at Carchemish argue that North Syria was, at one time, in the same cultural province as Susa.

2. Cylinder (plate XXIV, no. 5); steatite: "loop-bored": .016 × .014. Bought by WOOLLEY in Aleppo. The engraved subject is made up of broken elements among which one may detect a rude bucranium, a rosette, an antelope or stag and several pellets and strokes. Such designs occur also on early Susan cylinders (see e. g. *Délég. en Perse* XII pp. 105, 132 and plate III); but the loop-bored form (see H. S. pp. 18, 54) seems at home in N. Syria, while it is very rare in Elam.

3. Cylinder (plate XXIV, no. 6): steatite: loop-bored: .017 × .013. Procured by WOOLLEY at Zormaghara, a village facing Carchemish across the Euphrates.

The engraved subject—two antelopes moving in file—is precisely in the style of H. S. no. 49. Compare also *Délégation en Perse* XII, p. 99, fig. 73.

These two cylinders raise much the same question as has been debated in relation to no. 1. The style of their subjects is that of an Elamite glyptic class. One has to reckon with very close parallelism, e. g. between the squatting figures on seals of Syrian provenance such as H. S. pl. II, nos. 24, 31 and squatting figures on a cylinder from the Shushinak foundation deposit (D. P. VII, pl. 21). But the peculiar form of these cylinders is, on the balance of available evidence, of Syrian invention. The probable explanation is that, like no. 1, they are Syrian derivations from an Elamite culture which at an early age embraced North Syria.

4. "Gable" seal (plate XXIV, no. 7): black steatite: .035 × .035. Said to come from Boztepe near Sernj, in N. W. Mesopotamia, but bought by WOOLLEY in Aleppo.

Two registers: in the upper, an antelope, followed by a bull and a hare (or dog), set vertically: in the lower, three antelopes of which the first is set vertically. "Bird" fill-up mark in the field.

The Hittite character and style of this seal are obvious: cp. H. S. no. 93, pl. IV. Boztepe lies farther east than the usual sources of Hittite objects; but the report that this seal and a small group of others, all made of the same coal-black steatite, were found there is regarded as trustworthy by WOOLLEY, who purchased the lot.

5. Carinated Hemispheroidal stamp-seal (plate XXIV, no. 8): black steatite: diameter .025. Procured in England from a Beirut dealer.

Lion to right above an antelope in course which is attacked from below by an eagle, set inversely. In the field, a quatrefoil and two fill-up marks.

The similarity of the material to that of no. 4 and its companions, and the coincidence of the appearance of this seal in Beirut with that of the Boztepe group in Aleppo, suggest that it too was found at Boztepe near Seruj. The hatching of animal bodies is a well known feature of a certain Syrian glyptic class: see H. S. pl. V, no. 139. For the treatment of body-forms (*e. g.* legs and paws) see *ibid.* pl. IV, nos. 93, 94. On the whole class see *ibid.* p. 62, Group 7. There is no known Elamite parallel to this class, though "geometric" birds are met with in Elamite glyptics and ceramics. This class must be regarded as purely Syrian and North Mesopotamian. Probably it is just posterior to the "Elamite" period there.

6. "Stud" seal of trifoliate form (plate XXIV, nos. 9a and b): greenish steatite: height .022; diam. .045. Procured in England from a Beirut dealer. Lion attacking bull: scorpion above. The three elements are so disposed as to occupy the three leaves. On the butt of the stud-handle is an eight-petalled rosette.

In every respect this is a typical Syrian seal of the middle of Class II period (cp. H. S. no. 141 and the British Museum seal, *ibid.* p. 63, fig. 68.) The stylistic elongation of the animal forms and the cuneiform incision should be noticed.

7. Cylinder (plate XXIV, no. 10): red serpentine: .018 × .009. Bought by WOOLLEY in Aleppo. *Biga* with one occupant armed with bow and quiver, who holds reins and whip. Above the horses, a rosette, and below, a fish?. Three soldiers follow in file below two wild goats seated opposed.

A typical Syrian Hittite cylinder-subject. Cp. H. S. pl. VI, no. 167.

8. Cylinder (plate XXIV, no. 11): black haematite: .019 × .009. Bought by WOOLLEY in Beirut. *Biga* as on no. 7, but its occupant is not armed. Above the horses, a rosette (or star) and an eagle displayed; below, a scorpion, and before, a human profile. An unarmed man follows: behind him, a *libra* and group of two dancers and two trident symbols (locks of hair?): below all these, another unarmed belted man, set inversely (his arm and leg action show that he is not intended to be recumbent).

Subject of same type as no. 7. For the difference of style cp. H. S. pl. VI, no. 154.

9. Cylinder (plate XXIV, no. 12): reddish haematite: .014 × .008. Bought by WOOLLEY in Birejik. Deity enthroned holds a cup before a loaded altar above which are a crook and a crescent and sun-disk; and beyond it, seven detached spiral coils (= stars?). A male adorant approaches. *Secondary*: two rosettes above three men clad in tunics marching in file on a ground-line with pinioned arms. Below this an enclosed rosette.

For the style cp. H. S. pl. VI, nos. 152, 153 etc.

10. Cylinder (plate XXIV, no. 13): black serpentine: .015 × .008. Bought by WOOLLEY in Aleppo. Nude goddess, holding open her robe, stands on a bull before a loaded altar. Birds support her on either hand. An adorant holding a crook, a monster (?) holding a flower (?) and a monster with cock's head and wings, all three being draped in flounced skirts, approach. Behind them, an ape (or *homunculus*) squats below a vase? Before the bull, an ass-head symbol. Below all, a frieze containing a bird-headed sphinx, two hares, and an uncertain animal (lion?)

For such Syrian subjects cp. H. S. pl. VI, no. 170.

11. Cylinder (plate XXIV, no. 14): black haematite: .011 × .006. Bought by WOOLLEY at Beirut. Two registers set inversely one to the other. (1) Two lions, each holding up a forepaw over a cut-off human head; a scorpion above. Two antelopes or ibexes rampant and a third couched, all turning their heads back towards the lions and apparently in flight from them. In the field above, a star. (2) Four hares in course: in the field above, four cut-off human heads and a spray.

Cp. for style H. S. no. 154.

12. Cylinder (plate XXIV, no. 15): black haematite: .010 × .007. Bought by WOOLLEY at Aleppo. Two vultures with wings displayed in the Egyptian manner, each holding a Syrian *crux ansata*: between them, an ass-head symbol and a fish. *Secondary*: wild goat couched below a band of double coil.

This finely cut but formalized subject should be Phoenician, not Hittite.

13. Scarab (plate XXIV, no. 16): black haematite: .015 × .009. The bore is driven transversely through the tail of the scarab. Bought by WOOLLEY at Aleppo. Vulture perched on the back of a couched bull which raises a fore foot against the menacing beak.

The fine but dry style of this subject is paralleled by a scarab found at Carchemish in a grave of the Middle Cremation Age (c. 9th cent. B. C.). Cp. H. S. fig. 99 and also pl. IX, no. 254.

14. *Semi-Bulla* amulet or seal (plate XXIV, no. 17): red serpentine: diam. .026. Brought to England from Beirut by a dealer.

On the face, five (or six?) Hittite script characters and a palmette. On the dome, faint traces of similar characters within a band of decorative elements of the types shown in H. S. fig. 108 with two additions viz. XIX and DIC.

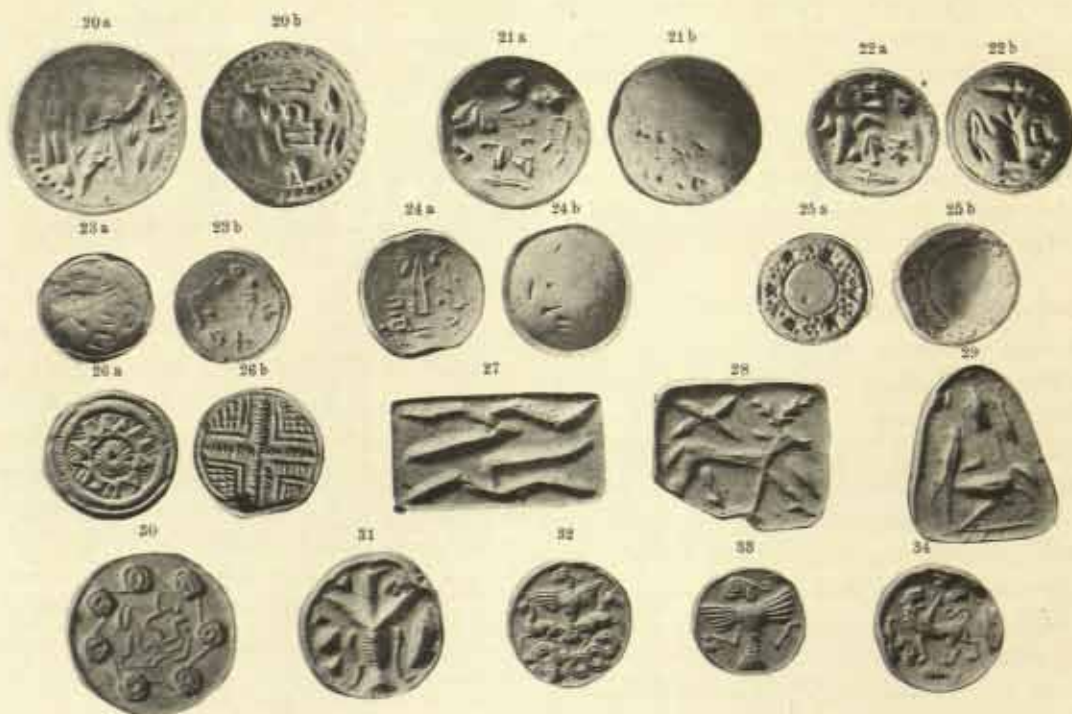
15. *Semi-Bulla* amulet or Hemispheroid stamp-seal (plate XXIV, no. 18): silver: weight, 82.192 grammes (? = 10 shekels): diameter, .33.

Procured in Cairo by Mr. G. D. HORNBLLOWER: said by its vendor to be from Mesopotamia. The dome is plain polished. On the base are two concentric zones surrounding a central panel. (I) *Outer Zone*: frieze of figures and symbols viz. (from left to right) (a) goddess seated and holding a flower: before her, a star: (b) group of two winged figures erect, and one unwinged, the last holding an axe? or thunderbolt: (c) two figures kneeling on either side of a palm-tree and apparently engaged in fertilizing it: (d) draped figure, winged? and facing left: (e) figure seated right before a large bird (or sheep's-head?) and a star: (f) group of a tortoise and a fly (or bee?): (g) a group of symbols, tree, two uprights, double axe under a pair of wings?, a quadruped? and an altar? with flower atop. (II) *Inner Zone*: frieze of decorative elements: *crucis ansatae* of Hittite type, stars and triangles (or caps?) (III) *Central Panel*: I am unable to suggest an explanation of this group. The direction of the bore brings to the top of the outer

NAPATA TOMB 396



METROPOLITAN MUSEUM



Tomb-Group from Napata. Hittite Seals

zone either group (b), as above, or group (f). The central panel is very puzzling: if group (f) is at the top, the representation suggests a nude man, pinioning the arms of a kneeling captive, before whom is an upright and a dot. But this interpretation assumes much "shorthand" convention in the representation of the figures.

The best parallel to the form of this amulet or seal is the silver specimen in the Louvre (A. O. 3755), cited in H. S. p. 75; but for subject cp. the British Museum "hammer", figured *ibid.* fig. 78, and also the Aidin "hammer", fig. 79. There can be no question that our specimen belongs to the same class, period, and region as these. See H. S. p. 92 for imprints of seals, whose subjects show similar schemes of arrangement, on Cappadocian tablets of the 13th. century B. C.

This is, without doubt, the identical object whose impression was published by L. MESSERSCHMIDT (*Mitteil. der Vorderas. Gesellschaft* V, p. 44 and plate 43, no. 2) from two plaster casts at Berlin. MESSERSCHMIDT, who had not seen the object itself, believed it false, but gave it the benefit of a doubt. With the original object before me, I have no hesitation in pronouncing it genuine. MESSERSCHMIDT's drawing misrepresents the central group and the fly (or bee) symbol in the outer zone. He was told that the object was found at Malatia, a more likely source than that alleged by the Cairene dealer, into whose hands the original came some years later. Prof. A. H. SAYCE called my attention to the identity of this object with the impression given by MESSERSCHMIDT.

16. Cylinder (plate XXV, no. 19): black haematite: .025 × .013 (barrel slightly concave):

Deity standing receives three adorants of whom the first is a miniature female?; the second a young male with fuzzy hair holding a *lituus*; and the third a fully draped bearded male holding sceptre (a King?). Above the first, an eagle displayed, and between the second and third, a sun disk and crescent moon and a vase. *Secondary*: a human-headed sphinx, a belt of triple coil and a hare.

Found in Grave 396 at Napata, by Mr. F. LL. GRIFFITH in 1914, in association with Egyptian glazed amulets, flies etc., four well engraved steatite scarabs, and some stone barrel-beads, one of onyx of flattened form. The whole tomb-group is now in the Ashmolean Museum. The grave contained six bodies, on a humerus of one of which this cylinder lay. The tomb-group is of the period of close contact with Egypt which ended with the supremacy of Psammetichus I. about 655 B. C. The cylinder is undoubtedly of Southern Hittite fabric, and having wandered far, may be of considerably earlier date than the grave. It belongs to the same class as several cylinders figured in *Hittite Seals* pl. VII. (especially nos. 179, 175), which (*ibid.* p. 97) are ascribed provisionally to a late Ramesside period of influence. If the Napata cylinder can be supposed to have been made in Syria or Cilicia in the time of the Twentieth Egyptian Dynasty, and brought to Egypt under the Twenty-first, its appearance in an Ethiopian tomb of, say, the early years of the 8th century, is not strange. As a foreign object of, probably, talismanic value, it is likely to have been kept long in use. It is almost the only Hittite cylinder found so far in a tomb-group by a scientific observer.

Mr. F. LL. GRIFFITH's description of grave 396 in the Sanam cemetery at Napata, in which no. 16 was found, is as follows:—

Rectangular bricked grave measuring inside 190 × 110 cm; axis 290°; containing not less than six skeletons in considerable confusion, but all with heads to the river, *i. e.* westwards.

On the left humerus of one of the bodies, a Syrian seal of haematite.

Elsewhere in the grave:—of blue glaze, thirteen flies (rough), ten small rough figures of deities, seven serrated lentoid beads and some small beads; barrel bead of amethystine quartz; two brownish speckled barrel beads of amygdaloidal basalt; broad barrel bead, flattened beneath, of onyx; small globular bead, grooved like a melon, of carnelian; oval pendant of green felspar. Four scarabs of burnt steatite: one of these, well shaped and rather large, is inscribed Men-kheper-rē between uraei below the boat of the Sun; another is inscribed "[all?] good things". One cowrie (*Cypraea annulus*).

All these objects are shown on plate XXV with a few others not specified in the record. The cemetery was mainly of Dyn. XXV and its Ethiopian successors; the fine beads and the good style of the scarabs date this grave not later than Dyn. XXV. The large scarab is like some of Shabako, and the name Men-kheper-rē, so disposed, may probably be taken to indicate Shabataka¹, c. 690 B. C. although when carelessly engraved it has no such significance. The cylinder and the flattened barrel bead (shaped like many weights from Lower Egypt and Syria) were the only finds of the kind in this large cemetery of over sixteen hundred graves.

The Oxford excavations of Sanam, Napata, are to be described in the *Liverpool Annals of Archaeology and Anthropology*, vols. IX, X.

B. METROPOLITAN MUSEUM, NEW YORK.

17. "*Bulla*" amulet or seal (plate XXV no. 20 *a, b*): brownish steatite: diameter .027.

Obverse: male figure (War God) marching with unstrung bow hung over his shoulder: in the field, three Hittite script characters, repeated on each side of the figure. The whole within a ladder border. *Reverse*: legend of seven Hittite script-characters, of which two, repeated twice, are identical with the first two in the groups on the obverse. Ladder border.

For *bullae*, showing this same bow-bearing figure, see H. S. pl. x, nos. 313 (reverse) and 314 (obverse): also p. 90 fig. 114. The last of these examples which is from North Syria varies from the other two (from Eastern Asia Minor) in details of dress. The New York specimen conforms to the Asia Minor type, and falls into the earlier class of *bullae*.

18. "*Bulla*" amulet or seal (plate XXV, no. 21 *a, b*): black steatite: diameter .024.

Obverse: legend in Hittite script-characters within scratched dentated border. The characters, much worn, comprise two gauntleted hands (or gauntlets), one above the other, and a hooked symbol. The rest of the marks in the field seem fill-up elements, probably without phonetic significance.

Reverse: decorative border surrounding a circular panel of script-characters: but all is too much rubbed to be made out with certainty.

The scratchy character of the inscription relegates this specimen to the later class of *Bullae*, on which see H. S. pp. 89, 90.

19. "*Bulla*" amulet or seal (plate XXV, no. 22 *a, b*): red serpentine: diam. .019.

Obverse and Reverse: legends in Hittite script, of which only the uppermost group of characters, basket flanked by triangles or caps, appears on both sides. The style is that of *bullae* from Jebel Abu Gelgel in N. Syria. See H. S. pl. x, nos. 324, 325.

¹ See REISSER, *The Harvard-Boston Excavations in 1918-1919* in *Journal* VI, 64.

20. "*Bulla*" amulet or seal (plate XXV, no. 23*a, b*): brown steatite: diam. .017.
Obverse and Reverse: legends in Hittite script, differing entirely one from the other.
 Scratchy style of the Late Hittite period in Syria.

21. "*Bulla*" amulet or seal (plate XXV, no. 24*a, b*): black steatite: diam. .019.
Obverse and Reverse: legends in Hittite script, apparently different; but that on the reverse is too much rubbed for certainty. Toothed borders. Probably an earlier specimen than no. 4.

22. "*Semi-bulla*" amulet or seal (plate XXV, no. 25*a, b*): black steatite: diam. .017.
Face: zone of decorative elements (pointillé rosettes as in H. S. fig. 108, first line, and palmettes as *ibid.* third line) round blank circular panel.

Dome: zone of decorative elements (hatched ovals as *ibid.*, second line, and palmettes) round blank centre.

See H. S. p. 88 for the period of *semi-bullae* with this characteristic decoration.

23. Discoid "*bullae*" amulet or seal (plate XXV, no. 26*a, b*): red serpentine: diam. .020.
Obverse: central rosette within a zone of hatched dog-tooth triangles with smaller triangles as "fill-up." A dentated border round the whole.

Reverse: four sprays arranged cross-wise: the spaces between the arms filled with enclosed hatched triangles.

This object must belong to the same region and period as the British Museum lunate amulet published in H. S. p. 63, fig. 67, and *semi-bullae* generally.

24. "Gable" stamp-seal (plate XXV, no. 27): black steatite: .035 × .019. Conventionalized design derived probably from horned animal heads.

The origin of this degradation is to be looked for in such subjects as the wild-goat heads in H. S. pl. IV, no. 104, 105. Examples will be seen on the same plate, which illustrate the process of breaking-up.

25. "Gable" stamp-seal (plate XXV, no. 28): greenish steatite: .028 × .024.

A stag moving right: quatrefoil and "fill-up" stroke in the field. See H. S. pl. IV.

26. Triangular "stud" stamp-seal (plate XXV, no. 29): black steatite: .030 × .024.

Degraded design of a type very commonly found on seals of this form. Cp. H. S. pl. V, no. 141 and pl. VII, nos. 203—208. The lower element is originally derived from an antelope: the upper, from a lion (or possibly an eagle).

27. "Knob" stamp-seal (plate XXV, no. 30): bronze: diam. .028.

Within a border of linked spiral coils, three Hittite script-characters,—bull's head, and serpents.

I know no exact parallel to this style: the nearest is on the flattened *bullae*, engraved on one face only, published H. S. pl. X, no. 327. The latter came from Jebel Abu Gelgel in N. Syria. For a similar coil border cp. H. S. pl. VII, no. 197.

28. "Loop" stamp-seal (plate XXV, no. 31): steatite: diam. .024.

Eagle displayed: "fill-up" sprays and wedges in the field.

The style is that of the oldest seals of the Late Hittite period (cp., *e. g.*, H. S. pl. VI, no. 155), engraved either in the last century of the Hittite Empire, or the first of the post-Hittite age.

29. "Knob" stamp-seal (plate XXV, no. 32): black steatite: diam. .021.

Eagle displayed and supported below by twin antelopes passant outwards, the whole group above a band of triple coil.

The eagle shows some advance in style upon that of H. S. pl. VII, no. 193; and the freedom with which the antelopes are treated recalls such seals as are illustrated *ibid.* pl. IX, no. 255. The latter part of the Third Hittite period (9th or 8th century B. C.) seems to be indicated,

30. "Stud" stamp-seal (plate XXV, no. 33): white steatite: diam. .019.

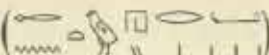
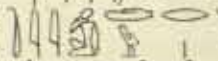
Eagle displayed.

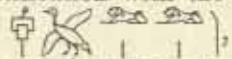
The style is almost exactly that of H. S. pl. VII, no. 193; therefore, this seal may be dated a little earlier than no. 13; but it must belong to the same region and general period.

31. "Hammer" stamp-seal (plate XXV, no. 34): quartzite: diam. .022. Handle of human fist form. cp. H. S. p. 22, fig. 20 D.

Lion standing left before the head of a goat or gazelle ("shorthand" for the entire animal): it turns its jaws and raises one paw towards another animal shown in shorthand in the upper field (possibly a bull). Sprays in the field.




Style of earlier part of the Latest Hittite period: cp. H. S. pl. IX.

men of valour" () of Khattusil's army at the battle of Kadesh. It may also be represented by , *Tydul(e) or *Ty'dwal, the name of the Hittite general of archers at the same battle. The identification of the name of Tod'al with Dudhal(iyaš) was made by Prof. SAYCE¹. I think that Ti'dul is probably the same name, differently spelt. It is considerably rubbed down, of course. Apart from the loss of the nominative termination (which also disappears in Semitic cuneiform, leaving the name as Dudhaliya), and a hypocoristic or patronymic(?) -iya[s] (= ius), the medial guttural of the name itself, while apparently preserved in the form Tod'al, has gone in Ti'dul. Dudhaliya has been identified by SAYCE with the Biblical name Tid'al, king of the Goyyim (GEN. XIV)². If the Tid'al of the Hebrews = Dudhal(iya), so may Tod'al or Tid'ul. There is no other candidate in the Egyptian texts relating to the Hittites for identification with the name of Dudhaliyaš.

, which may be vocalized as Sapalel(e) or Sapelulu, is the Egyptian form of the name of the great Hittite conqueror usually known now, on Semitic cuneiform authority, as Shubbiluliuma. The Egyptian form would seem to be a very drastic reduction of the original. But it is explicable. The name was one that was handed down among the Hittites, and in the ninth century B. C. we find a chief in the Carchemish region named Sapalulme³, and, what is still more remarkable, at the beginning of the Christian era a prince of Edessa named Sapul⁴.

This looks as if the -ma or -me syllable were separable from the rest of the name. As a matter of fact this very syllable was often used as a sort of emphatic particle added to names; thus at this time we find Hattusiliš in a Semitic document referred to as Hattusili-ma, and a king of Aleppo is regularly called Rimisarri-ma instead of plain Rimisarri⁵. This would seem to explain the Egyptian transliteration of Šubbiluliuma or Šuppiluliuma (the *b* and *p* were constantly confused) satisfactorily, but for the fact that HROZŃ and FORRER give a "Kanisian" Hittite form Šubbiluliumaš⁶, in which the Hittite nominative case-ending seems to be tacked on after the emphatic. This looks as if, as in other Hittite names, the full form was really Šubbilulius or Šuppilulius; shortly (in the vocative, so to speak), Šuppilul. And this corresponds closely to the Egyptian transliteration. We should therefore perhaps speak in future not of Shubbiluliuma but of Šuppilul or Šuppilulius.

¹ SAYCE, in GARSTANG'S *Hittites*, p. 324, no. 4. He does not give the hieroglyphics: I assume that his Tid'al is Tod'al.

² *Ibid.* He reads the Egyptian form as Tid'al also, which is not quite correct for . The guttural is not ' (Ṭ) but ʿ, and (a matter of taste, perhaps) the Egyptian  is better vocalized to than *ti*. In Ti'dul the first syllable is definitely *ti* or *ty*, . Prof. SAYCE probably, having Ti'dul also in his mind, combined the two.

³ R. III 7, 142, 52; SCHROEDER, *Keilschr. Bibl.* I. p. 156-9. This is no doubt the origin of W. M. MÜLLER'S form *Sapalulmi* or *Sapalulmi* (*Asien und Europa*, pp. 333, no. 1; 395), for which he quotes no authority. The identity of the names Šubbiluliuma and Sapalulme has been pointed out by GUSTAVS, *O. L. Z.* 1917, 323.

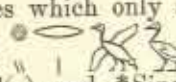

⁴ HALÉVY, *Rech. Bibl.* I. p. 279; C. J. BALL, *P. S. B. A. X* (1888), p. 428.

⁵ *Keilschrifttexte aus Boghazköi*, I. no. 6.

⁶ HROZŃ, *ibid.*, V, Übersicht; FORRER, *M. D. O. G.* 61, p. 31. Neither scholar has yet published the cuneiform text in which the name occurs in this form. It is to be regretted that the example set by WINCKLER in publishing the results of researches without the texts on which they are based, so that they cannot be controlled by others, is being followed, to some extent by FORRER.

There are however objections to this view. Such a tacking on of the nominative case-ending after the emphatic particle could hardly be explained except as a scribe's error¹, and if it occurs more than once or twice it becomes improbable and we must look for another explanation of the *-ma*. It is a commonplace of "cuneiform philology" (if one can use such a term) that the sounds *m*, *v*, *w* in Babylonian were constantly confused, and such a syllable as *ma* in a name may quite conceivably have been pronounced *wa* or *va*. So that the pronunciation of the Hittite king's name thus spelt in cuneiform may have been intended to be Šuppiluliuwaš or Šuppiluliuvaš, *quasi* Šuppiluliu²as, the digamma well expressing the sound reproduced in the cuneiform as *m*³. The name without the nominative case-ending will then have been Šuppiliu⁴(a), and the dropping of this final *w* or *v* sound by the Egyptians in their transcription Sapelulu is comprehensible enough.



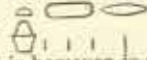
The single *p* of the Egyptian form is probably due to a difficulty of expressing two juxtaposed consonants in hieroglyphics. As the true form of the name is still doubtful, it seems best to transcribe it simply as Šuppilulu, in accordance with the Egyptian transcription.

There are some names which only appear in Egyptian, and are not yet known from a Hittite source. Such are  and ⁵, to be vocalized, no doubt, *Khilpasil(e) and *Sipazal, or something of that sort. The element *Hilpa-* of the first is otherwise known in Hittite, and the *Sipa-* in the second may be the element *Šuppi-* of the name Šuppilulu.

Both these names are evidently without the nominative, like Tid'ul, Mursil, or Khatusil. Were we to find them in Hittite they would no doubt appear as Hilpašilis and Šuppizilis, shortly Hilpašil and Šuppizil. The Egyptian scribes therefore either transcribed these names not from Hittite but from Semitic written originals, or, as seems equally probable, were well aware of the separableness of the nominative suffix, and

¹ I am indebted to Mr. S. SMITH for the following comment: "The form 'Šubbiluliumaš' might seem to shew that the *-ma* was an integral part of the name, and not an emphatic. But if this is only a single instance, it is probable that there was some error of the scribe, who tacked the nominative case-ending on after the emphatic, as the use of the Semitic emphatic particle *-ma* (sometimes *-me*) by the Hittites in Hittite words is well attested."

² Mr. GADD would on the whole prefer this explanation.

³ Hattusil's scribe and one of the warriors at Kadesh (CHAMPOLLION, *Notes Descr.* I. p. 587 ff., *Lectures*, *Denkm.*, III. 164 f.). The name of Hattusil's ambassador, mentioned in the treaty between him and Rameses II, , is also without the nominative. *Tartisebu or *Tal(e)tisibu for Tartisibuš or possibly Telitisibuš (on the analogy of Telibinuš, the name of a Hittite king made known to us by HROZNY). MÜLLER (*Asien u. Europa*, p. 395; *M. V. G.* 1902 (5), p. 3, n. 1), SAYCE (*Proc. Soc. Bibl. Arch.* XXV (1903), 306, reading it as Tal-tisubu), and GARDINER-LANGDON (*J. E. A.* 1920, p. 186) regard this name as compounded with that of the god Teshub. This, however, is in Hittite, when given the nominative case-ending, Tešupaš (i. e., on the analogy of Latin, if this be permissible, it is of the first, not the second, declension), and therefore one does not understand the @ of the Egyptian form if Teshub is meant, unless it is to be regarded as indicating the vocalization of . If Teshub is really intended, then it would look as if the *-binuš* of the name Teli-binuš might, on the analogy of Teli-tisibuš (assuming that my suggestion that the  of the ambassador's name = the *Teli-* of Telibinuš is justified), be also a divine name. This however is contradicted by the manner in which the name Telibinuš is spelt in cuneiform, with nothing to indicate that it is compounded with the name of a god.

NEAR-EAST PROBLEMS IN THE SECOND PRE-CHRISTIAN MILLENNIUM

BY PROFESSOR A. T. OLMSTEAD

The discovery of the Hittite archives¹ has forced us to reconsider the history of the middle of the second pre-Christian millennium, when for the first time in ancient history there developed a condition not far from the balance of power of modern Europe. The investigation of the new documents has already gone far, and particular attention has been directed to the relations with Egypt². No student has directed especial attention to the Assyrian relations, though the new discoveries at Ashur have made possible important additions to our knowledge³. The present paper is a supplement to one giving what was then known of early Assyrian history⁴, and repeats what was there said only in so far as is necessary for the general picture of the Near East in the period and for showing the new light in which these events can be studied.

The early part of the second millennium is a period of growing darkness and of disintegration for the two great countries, Egypt and Babylon, which have hitherto given us virtually all our information as to the history of the Near East. In Babylonia, the empire built up by Hammurapi rapidly went to pieces in the incapable hands of his descendants⁵. Under the reign of his son Samsu-iluna, south Babylonia was already lost to the so-called second Babylonian dynasty (2053), and in 1926 the first dynasty glimmered out. Henceforth, weak as it was, the second dynasty was accepted as the chief power of the alluvium, though only south Babylonia was in its control, and here such states as Uruk under Sin-gashid defied its kings.

Later scribes declared that the Hittites were responsible for its downfall⁶. A Hittite inscription found in Babylon has been cited in proof, but the writing is the late cursive and the character of the art points to somewhere about the tenth, not the twentieth

¹ *Keilschrifttexte aus Boghazköi*, I, ff.; native documents of historical nature, HROZNY, *Hethitische Keilschrifttexte aus Boghazköi*; those in Babylonian translated, LUCKENBILL, *AJSL*, XXXVII, 161 ff.

² MEISSNER, *ZDMG*, LXXII, 32 ff.; *SB. Berl.* 1917, 282 ff.; LANGDON-GARDINER, *Journal* VI, 179 ff. The Egyptian material is collected in PATON, *Egyptian Records of travel*; cf. BREASTED, *Records of Ancient Egypt*; *History of Egypt*. The Amarna letters are cited by the numbers of KRUDTZEON, *Die el-Amarna-Tafeln*; a new edition of the Berlin letters, SCHROEDER, *Die Tontafeln von el-Amarna*.

³ WEIDNER, *MDOG*, LVIII, 1 ff.; *MVAG*, 1915, 4; 1921, 2.

⁴ OLMSTEAD, *AJSL*, XXXVI, 120 ff.; cf. *AJSL*, XXXVIII, 225 ff. for corrections in detail made necessary by the new data presented by WEIDNER.

⁵ Detailed study, OLMSTEAD, *AJSL*, XXXV, 87 ff.

⁶ KING, *Chronicles* II, 10.

century¹. A Hittite ruler of the early thirteenth century, on the contrary, emphatically asserts to a Babylonian monarch that the sons of Hatti never subjugated the sons of Kar-Duniash². On the other hand, a ruler of the third Babylonian dynasty, who ruled somewhere about the end of the seventeenth century, brought back the statue of Marduk, the god-ruler of Babylon from Hana, whither he had been carried off³. This must refer to the end of the first Babylonian dynasty. Now Hana or Hanat is perfectly well known, and is referred to numerous times in the earlier literature. It is the modern 'Ana, the most beautiful island in the middle Euphrates⁴. If Marduk was carried off to the capital of the kingdom which destroyed the first dynasty of Babylon, that capital was on the middle Euphrates.

Now the fall of Babylon took place, in 1926; this date is exact, as it is based on astronomical calculations which are generally, though not universally, accepted. Not far from this time we find a very powerful ruler in this region, Shamshi-Adad I. The date assigned by WEIDNER is 1892—1860, but this is secured by dead reckoning only, and at a distance from the base to permit a considerable error. It may therefore well be that he can be pushed back to 1926.

We have hitherto called him an Assyrian ruler, but although in his Ashur inscriptions he attributes the initiation of his activities to Ashur who loves him, there is no indication of a city state of Ashur. Although the first ruler whose name appears at Ashur to take the title of king, he does not receive it from Ashur and his father Igurkapkapu is not counted in the Assyrian lists. His own title is that of "King of the Universe," an old title formerly connected with the extreme north of Babylonia. He "devotes his energies to the land between the Tigris and Euphrates rivers," and he set up an inscription in Tirqa on the Euphrates where he built a temple to the west Semitic god Dagan. He could very well be the king who carried off the cult statues to Hana, which was located in the center of his own country.

He also set up a memorial tablet in the city of Laban, by the shore of the great sea. This is a definite claim to ownership of Lebanon and North Syria⁵. Now we at once recall that earlier in this century, Sinuhe was in this very region, in Qedme, east of Kepn (Byblos), where he found Enshi son of 'Amu, chief of the upper Tenu, and lived in the land of Yaa, while his sons (?) ruled in Qedm, Khentkesh, and the lands of the Fenkhu (Phoenicians?)⁶.

The great Shamshi-Adad was followed by Ishme-Dagan, byashshat, and by Rimush. Then comes another group headed by Adasi, to whom and to whose son Bel-ibni, Esarhaddon points with pride as ancestors. He calls Adasi the "founder of the kingdom of Assyria," which should mean that he freed Ashur from the control of the kingdom on the Euphrates. The remainder of this group have peculiar names, Shabai, Sharma-Adad I, Gizil-Sin, Zimzai, Lullai; one edition of the list of rulers omits the whole group, as if doubtful of their legitimacy.

¹ So KOLDEWEY, *Babylon*, 165; cf. *Die Hittitische Inschrift*.

² *KBo.* I, 10 of Hattushilish III; LUCKENBILL, *AJSL.* XXXVII, 200.

³ Cf. OLMSTEAD, *AJSL.* XXXVI, 121, n. 6.

⁴ OLMSTEAD, *JAOS.* XXXVIII, 241 n.

⁵ Fully discussed, OLMSTEAD, *AJSL.* XXXVI, 127.

⁶ GARDINER, *Notes on Sinuhe* (sep. ed.), 168 ff.

These kings fill the first half of the eighteenth century¹. They are names and nothing more, and they are characteristic of our knowledge of the period throughout the whole of the Near East. In Babylonia, the so-called second dynasty was of no account, in the north anarchy was closed by the sack of Babylon by Gandash in 1745 and the establishment of the third or Kashshite dynasty. In Egypt, the glorious Twelfth Dynasty had closed a generation earlier, 1788, and only local princelings contended with each other in never ending struggles.

During this period of utter darkness in the older countries, there appear the Hyksos, and they give us reason to believe that when excavations are carried on elsewhere, we shall find civilization in the Hyksos home. But where should we look for the centre of this Hyksos power? There can be no doubt that it was north east of Egypt, for Hatshepsut calls them Amu or Asiatics², Manetho could identify them with the Hebrews³, Avaris was made their centre to be near their Syrian lands, and it was in Syria they resisted when driven out of Egypt.

Their greatest king was Khian⁴. His name is the same as the Haianu of Samal who fought with Shalmaneser III⁵. His title, "Lord of the Seacoast(?)," in a Chicago Art Institute cylinder seal⁶, should refer to the Mediterranean coast of Syria, and recalls the claim of Shamshi-Adad I to the shore of the great sea. On some of his seals, he has the twisted rope design, characteristic of the "Hittite" seals found in north Syria⁷.

All this points to connection with the north Syrian region claimed by Shamshi Adad. Another connection with another part ruled by Shamshi-Adad is the Baghdad lion. The fact that it was there before 1861⁸ seems to preclude its being carried in modern times from Egypt. Those who deny its Egyptian origin look to Babylon as its source. This is virtually excluded on chronological grounds. If Khian had ruled Babylon after 1745, we should be virtually certain of references, while Egyptian chronology places Khian something like a century later than this date. In fact, it was somewhere about the time of Khian that Agum-kakrime brought back the Marduk statue from Hana, where was still an independent kingdom. Considering the probabilities of finding, it would be as natural to bring the statue to Baghdad from 'Ana as from Babylon. We may therefore see in the lion an indication that the Hana region was under the control of Khian, but with full recognition of the precariousness of the evidence. The only thing we can say is that the evidence, such as it is, all hangs together and all points to the North Syrian—West Mesopotamian region as the centre of the Hyksos power.

About the same time that the third dynasty began in north Babylonia, a new dynasty commences in Ashur. The names of the new rulers are Pan-Ninua, Sharma-Adad II, Erishum III, Shamshi-Adad II, Ishme-Dagan II, Shamshi-Adad III, an unknown, Puzur-Ashur III, Enlil-nasir I, Nur-ili, Ishme-Dagan III. Again we have names and nothing more (1756—1551, WEIDNER), but the names at least have significance. They are certainly west Semitic, with their frequent invocation of the two west Semitic gods of that group, Adad and Dagan. Two Shamshi-Adads and two Ishme-Dagans can only be named in imitation of the great Shamshi-Adad and his son. Perhaps the connection with the Euphrates was renewed. Were these kings rulers of Ashur in the first place or only

¹ 1806—1757, WEIDNER, *MFAG.* 1921, 2.

² *Josephus, contra Apion.*, I, 14.

³ OLMSTEAD, *JAOS.* XLI, 351.

⁴ PETRIE, *Hist.* I, 119.

⁵ BREASTED, *Rec.* II, 125; PATON, *Rec.* XIX.

⁶ Material collected, PATON, *Rec.* XI.

⁷ PIER, *AJS.* XXIII, 78; PATON, *Rec.* XI.

⁸ DEVERIA, *Mémoires* I, 217.

incidentally? We have no inscriptions with their titularies to give answer, though one of the later kings recognizes Ashur in his own name. Were they part of a greater kingdom, whether of the Hyksos or of a Mesopotamian kingdom opposed to them? The lion of Khian which came probably from Mesopotamia speaks in favor of the first alternative, but is there a possibility that there is some element of truth in the statement of Manetho that the Hyksos specially fortified the eastern frontier as they feared possibility of invasion from the Assyrians, then the greatest power¹?

Egypt suddenly came alive about 1580, drove out the Hyksos and brought Syria under her control. Already Ahmose (1580—1557) had invaded Zahi, that is Egyptian armies had reached central Syria², and he claims the Fenkhu, in whom we can hardly see other than the Phoenicians³. Amenophis I may have raided all Syria, since his successor Thutmose I claims a boundary at the Euphrates before his own travels thither⁴, and later he was at Niy and hunted elephants in Naharina⁵. During the reign of Hatshepsut (1501—1479), it was possible to bring cedars from as far north as Kepn (Byblos)⁶. Unfortunately, this is our entire amount of information; we have no details and it remains a moot point just how far this country, and especially the interior, was in Egyptian hands.

When Thutmose III began his first campaign, in 1479, the Egyptian hold on Syria was largely lost and the reason is probably to be found in the developing power of the Hittites. Archaeology shows a neolithic civilization in Asia Minor. The so-called Cappadocian tablets are the archives of a "factory" of Semitic traders who were settled in Mazaka in the time of the Ur dynasty of Babylonia, the twenty-fifth century before Christ. There are startling analogies to the Assyrians. The god Ashir is often honoured in their names and in language they suggest relationship to the Assyrian dialect. On one seal is the impress of a well known governor of Ashur, the city from which these merchants must have set forth. It was from these that the nations of Asia Minor learned cuneiform.

About the time that Hatshepsut began to rule, say about 1500, we have the first known king of the Hittites, the father of Hattushilish I, who conquered Hubishna: Tuwanna, the well known Tyana, the home of the anti-Christ Appolonius: Nenashsha, the classical Nanessos⁷: Landa, the classical Leandis⁸: Zallara: Mashshuhanta: and Lu...na. The third of these kings, Murshilish, took Halpash, that is Aleppo; this brings him into contact with the Egyptians, but the question of the date brings up a difficult problem⁹.

When Thutmose III began his first expedition, 1679, all Syria seems to have been lost. Even Sharuhén, on the extreme southern boundary, was in revolt though the decisive battle with the king of Kadesh was fought in Megiddo. The next year, 1678, we have Thutmose listing the "tribute" of a "chief of Ashur," lapis lazuli, vessels of colored stone, horses, wagons, and valuable woods. The Egyptian pompously calls it tribute, but there is no reason to assume that it was delivered as such; the analogy of later and similar relations makes it probable that we have here too actual alliance between Assyria and Egypt. Assyria desired aid against Babylonia and protection against Mitanni; for Egypt, Assyria was an enemy in the rear of Mitanni and perhaps might

¹ Josephus, *contra Apion.*, I, 14.

² BREASTED, *Rec.* II, 10; PATON, *Rec.* XV.

³ BREASTED, *Rec.* II, 13; PATON, *Rec.* XIV.

⁴ So BREASTED, *Hist.* 254; *Rec.* II, 31; PATON, *Rec.* XVI.

⁵ BREASTED, *Rec.* II, 125 (but of Thutmose I); SETHE, *Urkunden* IV, 103; PATON, *Rec.* XV.

⁶ SETHE, *Urkunden* IV, 534 ff.; PATON, *Rec.* XX.

⁷ RAMSAY, *Hist. Geog. Asia Minor*, 285.

⁸ *Ibid.*, 311.

⁹ KBo. III, 1; HROZNY, *Keilschrifttexte*, 90 ff.

be made of avail against the Hittites. It is most unfortunate that Thutmose does not give us the name of the Assyrian ruler, but we can conjecture; the Assyrian line continues from where we left it with Ashur-nirari, with whom we begin to have inscriptions, showing prosperity in the capital, with Puzur-Ashir IV, who made a formal treaty of alliance with Burnaburiash I of Babylonia, with Enlil-nasir II, and with Ashur-rabi I. The date of the last (1490—1470, WEIDNER) makes it probable that he was the king allied with Egypt.

Thutmose did not consider it wise to attack Naharina until 1469, by which time it might be assumed that Assyria had seriously weakened Mitanni. For this same year there is claimed "tribute" of Babylon and of the Hittites. Unfortunately, Thutmose has again deliberately omitted the names of both kings. We must especially regret his failure in the case of Babylonia, for we have no idea as to who was ruling Babylon in this period. It seems too early for Kara-Indash I. The Hittite ruler was probably Murshilish, who instead of telling of tribute sent to Thutmose, rather tells of the capture of Aleppo. He does worse than that, he claims the capture of Babylon¹! Naturally, a conquest of Babylon, especially with the carrying off of the spoil, is as much out of the question as in the case of the Egyptian claims. All we can say with certainty is that Egypt, the Hittites, Babylonia, and Assyria, were in diplomatic relation. The later balancing of power makes it probable that the truth behind all this is that the Hittites and the Babylonians were united against the Egyptians, the Assyrians, and perhaps the Mitannians. One fact is made abundantly clear, that claims of "tribute" are suspect until the contrary is proved.

It may well be that this was the exact time that Murshilish took Aleppo, that the "tribute" from the Hittites masks the confessed loss of that centre. At any rate, two years later, in 1467, he again marks an expedition against Naharina-Mitanni. Another tribute of the chief (*sic*) of the great Kheta is mentioned in 1461 and in 1460 he must again fight with Naharina².

The Hittite usurper extended his territory to Hurpanash (Herpa, Arabissos), to Tagarma, the Togormah of the Hebrews and the Til Garimmu of Sargon, about Derende on the Tokhma Su, west of Malatia³. Next is placed his capture of Carchemish, which Thutmose had just claimed for himself. The death of Hantilish must belong about 1450, so that by the death of Thutmose III (1447), the Egyptians seem to have lost control of the extreme north of Syria.

Thus in the first year of Amenophis II, it was necessary to conquer again all central and north Syria which was in full revolt. Naharina was once more defeated and Mitanni, "a country which knew not Egypt⁴," sought "favour." The "tribute" here claimed from Mitanni probably marks an alliance of Mitanni and Egypt, for the Mitannian king of the time, Saushshatar, invaded Assyria and took doors of gold and silver and set them up in his palace of Washshukkani⁵. The Assyrian king is not mentioned. It can hardly be Ashir-nirari II, about 1470—1450, more probably it was Ashir-bel-nisheshu or his brother

¹ The form of the name, Kā-dinger-ra, makes it absolutely certain that *the* Babylon is meant.

² Amenemhab fought near Aleppo and Carchemish, and this is probably to be placed in 1469, BREASTED, *Rec. II*, 231; PATON, *Rec. XXXII*.

³ OLINSTEAD, *Sargon*, 92; he also took the cities of Arzamia (Arzapia?) and Shallapash (?).

⁴ BREASTED, *Rec. II*, 317 though in contact under Thutmose III, *ib.* 265, 301.

⁵ KBo. I, 1 f.; LUCKENBILL, *AJSL*, XXXVII, 172.

Ashur-rim-nisheshu who made a friendly agreement with the Babylonian Kara-Indash I. The Hittite rulers of this period were Huzziash (1450—1430), the result of another palace revolution, who gave way to Telibunush, the author of the inscription which has told us all that has gone before. His own exploits were in the region of the later Isauria, the cities taken being Hashshuwash, Zizzilibbi, Lawazzandiash, the latter the classical Lauzados¹.

With Thutmose IV (1420—1411) comes the first of a series of marriages with Mitanni which show that that country is definitely allied with Egypt. This was with the daughter of Artatama, successor of Saushshatar, and the letter in which it is mentioned shows that it came after a series of peaceful negotiations²; Thutmose however claims that he won spoil on his first campaign against Naharina³. He also "established true brotherhood" with a king of Babylonia, whom we may assume to be Kara-Indash I, whose reign is about 1420—1408⁴.

Through the Mitannian marriage, Amenophis III (1411—1375) was the grandson of Artatama of Mitanni, and so half Asiatic himself. It was therefore natural that he should be on good terms with his uncle, Shutarna of Mitanni, and that in true Asiatic fashion he should receive his cousin Giluhpa in marriage (1401)⁵. Shutarna died shortly after this and was succeeded by Tushratta, whose daughter Taduhpa became the wife of Amenophis IV⁶. Amenophis III was also on good terms with Ashur-nadin-ahē (1410—1390) of Assyria and sent him a subvention in gold⁷, but this did not prevent his cousin Tushratta from filling his palace with the treasure brought as the "tribute" by "the Assyrian"⁸. Nineveh was his, and in his insolence he went so far as to exile Ishtar from her beloved city that she might visit with her healing his mighty cousin⁹. Ashur himself was counted as a subordinate Mitannian god¹⁰.

With Babylonia begging for gold¹¹, with Assyria receiving a subvention, and under the control of his cousin of Mitanni, with Syria his in greater part, with the king of Alashia (Cyprus) begging him not to ally himself with the Hittites¹², the position of Amenophis III might seem destined to a reign of the widest power and prosperity.

An example illustrates the untruth of this. Nuhashshe has been assumed to be Egyptian because of the way it appears in the Amarna letters; Tushratta realized that it was really independent under its king Sharrupsha, and made an attempt to secure it for Mitanni. Its king appealed to the Hittites where Hattushilish II had been succeeded by his son Shuppiluliuma¹³. The Hittite army soon secured all Mitannian territory west of the Euphrates, took Teburzia¹⁴ on the opposite bank, devastated Ishua¹⁵, gave a captive city to Antaratli of Alshe¹⁶, then, recrossing the river, he took Halba (Aleppo) where Akit-Teshub had raised a conspiracy against his brother Takuwa, the enemy nominee for king of Nia (Niy). Then he turned against Nuhashshe and Sharrupsha escaped with his life, leaving his servant Takib-sharri to be appointed in his place. On the way to

¹ RAMSAY, *Hist. Geog.* 370.

² SCHROEDER, 12; KNUDZON, 29.

³ BREASTED, *Rec.* II, 327.

⁴ KNUDZON, 1.

⁵ BREASTED, *Rec.* II, 347.

⁶ KNUDZON, 29.

⁷ KNUDZON, 16.

⁸ KBo. I, 1.

⁹ KNUDZON, 23.

¹⁰ KBo. I, 1 f.

¹¹ KNUDZON, 1 ff.

¹² KNUDZON, 35.

¹³ KBo. I, 4; LUCKENILL, *AJS.* XXXVII, 177.

¹⁴ The Assyrian Til Barsip, cf. OLMSTEAD, *JAOS.* XLI, 353.

¹⁵ OLMSTEAD, *JAOS.* XLI, 360 n.

¹⁶ The Assyrian Alzi, OLMSTEAD, *JAOS.* XXXVII, 170; XLI, 360.

Abina¹, Shuppiluliuma professed no intention of attacking Kinza, but when Shutarna marched out against him with his chariots, he could only reply in kind, and Shutarna joined Ariwana of Abina in exile in the Hittite capital².

Tushratta claimed the return of the Hittite king as a victory and sent a gift to his Egyptian relative from the spoil³. Evidently the natives of Mitanni were less optimistic about the victory, for they shortly after deposed him.

Before this happened, Amenophis III passed away and left a troubled throne to his son Amenophis IV. Ikhnaton (1375—1358) as he is more generally called, was not interested in foreign affairs. When Shuppiluliuma wrote him his congratulations on his accession⁴, Akhenaton remembered his intrigues in north Syria and his battles with the friendly Mitanni. He seems to have refused reply. The Amarna letters are full of the details of the advance of Shuppiluliuma into Syria, but the details are out of place here. Finally, Aziru of Amurru was brought to make one of the usual one-sided treaties with the Hittite monarch and north Syria was lost to Egypt⁵. Whether Egypt and the Hittites actually came to blows is uncertain, but quite possible⁶.

His failure to stand up against the Hittites permitted Tushratta's son Artatama II to displace his father. He remained content with the title "King of Harri," and handed over Mitanni to his son Shutarna to the prejudice of another son of Tushratta, Mattiuaza, who fled to the Hittite king. In his perilous situation, Artatama must make peace with some of his enemies. He chose the Assyrians and Alshe and to the disgust of the Hittite king rewarded each, and sent home the famous gold and silver doors robbed from Assyria. Akit-Teshub fled to Babylonia, but its king was allied to the Hittites and his possessions were confiscated and he himself threatened with death. With the aid of Shuppiluliuma, Mattiuaza won back a part of his heritage, and another son-in-law of the Hittite, Biashshilim recovered Carchemish⁷.

"The Assyrian" often appears in these narratives and at the close he is declared to have sued for peace. His name is deliberately concealed, but we learn from other sources that he was Ashur-uballit, the son of Eriba-Adad, the first of the men who created the Assyrian empire. At his accession, he ruled but a few square miles about Ashur and his very independence was doubtful; at its close, Assyria had won recognition as one of the great powers and Babylon recognized his protection. The troubles in Mitanni were of the greatest advantage to Assyria. Ashur might be no longer invoked among the gods of Mitanni and Ishtar of Nineveh once more became an Assyrian; her recovery was celebrated by the restoration of her temple. The wide extending Shubari represented a part of the spoils extorted from Mitanni⁸.

The letter by which he made reply to the coming of ambassadors from Amenophis IV has been preserved. He addresses the Egyptian as brother, in full insistence upon equality, and he suggests gold as subsidy, since his grandfather Ashur-nadin-ahe had received so much⁹. Burnaburiash II of Babylon protested vigorously to the Egyptian court against

¹ OLMSTEAD, *JAOS*, XLI, 367.

² *KBo.* I, 1 f.

³ KNUTZON, 17.

⁴ KNUTZON, 41.

⁵ *KBo.* I, 8; LUCKENBILL, *AJSL*, XXXVII, 197.

⁶ MEISSNER, *ZDMG*, LXXII, 34, finds evidence for this in the statement in the Ramesses treaty that Saplal had already made a treaty with an Egyptian king; it may only relate to such connections as are shown by the letter quoted above.

⁷ *KBo.* I, 1 f.

⁸ Detailed account, OLMSTEAD, *AJSL*, XXXVI, 130.

⁹ KNUTZON, 16.

the recognition accorded the Assyrians, his vassals¹, but his predecessors had made too many treaties with their former subjects, and if Assyria had more recently lost complete autonomy, it was to Mitanni and not to Babylonia.

Arik-den-ilu (1325—1310), the next Assyrian, conquered Halah and Qummuh², that is, the greater part of Mitanni became his, and Adad-nirari (1310—1280) made still greater advances. The long reign of Shuppiluliuma had been followed by those of his sons Arnuwandash and Murshilish. Halab (Aleppo) was bound anew with its king Rimsharma³. Kissuwadna or Cilicia, was recovered from the Harri, to the advantage of its king Shuna-Ashshura, whose name bore the same acknowledgement of the might of Ashur that we find in those of the business men who wrote the Cappadocian tablets a thousand years earlier⁴.

The last act of Murshilish was a war with Seti I of Egypt (1313—1295)⁵. The conflict was not confined to these combatants, for we find Nazi-Maruttash (1321—1295) of Babylonia warring with the Assyrians, and presumably he was a Hittite ally. This time the Assyrians won⁶.

Peace was soon after made between Seti and the new Hittite monarch, Muwatallish⁷, but the truce was not of long duration, for under Ramesses II (1292—1225) the war broke out with renewed violence. The new king of the Hittites wrote to the new king of Babylonia, Kadashman-Turgu (1295—1278), that he had been forced to wage a defensive war against the Egyptians, and received a favorable reply; that Babylonia sent actual aid is uncertain nor is it likely that there was again war between Assyria and Babylonia⁸. The battle of Kadesh was celebrated by Ramesses in poem and temple relief⁹, but the Hittite records¹⁰ told a different story. In his heart, Ramesses realized that he was fighting a losing battle and appealed to the growing Assyrian power. Adad-nirari responded, at least to the extent of sending gifts, and a promise of aid; the Egyptian took a mean advantage and in his annals called these presents by the ugly name of tribute (1282)¹¹.

¹ KNUDIZON, 9.

² Halah, OLMSTEAD, *Sargon*, 71; *AJSL*, XXXVI, 133, Qummuh, *JAOS*, XXXVII, 170.

³ *KBo.* I, 6; MEISSNER, *ZDMG*, LXXII, 35 f.; LUCKENBILL, *AJSL*, XXXVII, 188.

⁴ *KBo.* I, 5; MEISSNER, *ZDMG*, LXXII, 36 f.; LUCKENBILL, *AJSL*, XXXVII, 180 ff. The detailed boundary permits us to draw the boundary between the Hittites and Kissuwadna with almost exact precision. It begins with the sea, not the Black Sea as LUCKENBILL, but the Mediterranean. The first place mentioned is Lamia, the classic Lamos, in the Lamotis district, and on the Lamos river, the modern Lamas Su, RAMSAY, *Hist. Geog. Asia Minor*, 380. It is thus the extreme west of Cilicia Trachaea. Bituratu is not known. Next is Aruna, which, if the famous city elsewhere mentioned, is at last located with exactness. Its later successor must have been the equally well known Olba, RAMSAY, 374, with ruins at Ura, though perhaps the older place may be at Oren Köi, see map by F. SCHAEFER, *Jahreshefte Austr.*, 1902, 106 ff. The latter name, "Ruin Village," cannot however be counted as proof of identification with Aruna. Shalia is Soli, which has given us our English word solecism. After Anannushta comes Zabarina, which is Zephyrium, RAMSAY, 384. Thutthina is about where we should expect Tarsus. Atania is of course the more than well known Adana. Luwana may recall the Aleian Plain. Durbina and Sherigga are not known, but the Shamri river is the boundary and the Shamri can only be the Sarus or Selhun river, which certainly deserves the name of a "raging" river. The last place mentioned is Zilabuna.

⁵ BREASTED, *Rec.* III, 72.

⁶ Cf. OLMSTEAD, *AJSL*, XXXVI, 134.

⁷ Some make it a treaty between Murshilish and Horemheb, see LANGDON-GARDNER, *Journal* VI, 190, 203.

⁸ *KBo.* I, 10; LUCKENBILL, *AJSL*, XXXVII, 200 ff.

⁹ BREASTED, *Battle of Kadesh*.

¹⁰ *KBo.* I, 15, 19; MEISSNER, *ZDMG*, LXXII, 37 ff.

¹¹ BREASTED, *Rec.* III, 162.

How much this distraction aided Egypt, we cannot say; to Assyria the war was a godsend, for Mesopotamia no longer feared Hittite armies. The writer of a badly broken letter found in the Hittite archives tells his correspondent that in the days of Adad-nirari Hani-Galbat had been invaded and destroyed¹. The king himself chronicles the capture of Shubari, of Carchemish, of Harran, the most important city in Mitanni, and of Kashiari, the rough country south of the west Tigris, which represented the most easterly point to which the Hittite arms had penetrated².

Shalmaneser I (1280—1260) determined to follow his father's example in lopping off some more territory from the Hittite possessions in Mesopotamia. Unfortunately for him, this was just the moment when there came a sudden change in affairs. The anti-Egyptian Muwatallish was put out of the way by his brother Hattushilish III. It would seem that Urhi-Teshub, the son of Muwatallish fled to Ramesses, and that his surrender was the price of peace³. Later, Hattushilish could bemoan the fact that when he ascended the throne, Ramesses had sent him no congratulations⁴! But the peace was made⁵.

This peace was most unfortunate for Shalmaneser. When the king of Mitanni began to suspect the next Assyrian objective, he sent to his Hittite overlord a letter, telling how Hani-Galbat had been destroyed by Adad-nirari. He complains that a king of Shupria has been invited by his lord as protection against the writer, seizing his throne, so that now the king of Shupria is destroying the land by oppression⁶.

So when Shalmaneser had penetrated the difficult defiles into the Mitanni land he found him supported by his Hittite master. This was more than Shalmaneser had bargained for, and when the Hittites seized the passes, the invaders began to suffer from want of water. Shalmaneser claims the final victory, but the fact that he must use the exact words of his father when claiming victories from Taidi to Carchemish makes us somewhat suspicious. By the conquest of Qummuh, a wedge was driven far into the former territory of the Hittites; to make its control more sure, Shalmaneser planted at Halsi-Luha, in the triangle of fertile land north of Amedi, a colony which endured for four centuries⁷.

Further advance was prevented by the troubles which Hattushilish had stirred up on the southern boundary. The Hittite had been allied with Kadashman-Turgu; he attempted to renew the alliance when Kadashman-Enlil succeeded, but failed at first because his guardian, Itti-Marduk-balatu, had not liked the tone of his letter.

Intercourse was renewed when Kadashman-Enlil came of age, but the newly found brotherhood was soon endangered when news began to filter in of an agreement between Hittites and Egyptians. The Hittite reply was somewhat ambiguous. The former enemies have become brothers, will fight with a common enemy and with a common friend will be at peace. But after all there are contingencies through which the new alliance might be broken. For instance, if the extradition clause does not work, the kings will be angry with one another; if Ramesses aids his enemy, there will be war. If Egypt has prevented

¹ *KBo.* I, 20; LUCKENBILL, *AJSL.* XXXVII, 209 f.

² Cf. OLMSTEAD, *AJSL.* XXXVI, 133 ff.

³ Cf. the discussion by MEISSNER, *ZDMG.* LXXII, 43 ff.

⁴ *KBo.* I, 14; MEISSNER, *ZDMG.* LXXII, 44 f.; LUCKENBILL, *AJSL.* XXXVII, 203 ff.

⁵ Egyptian text, BREASTED, *Rec.* III, 163 ff.; the Hittite copy, *KBo.* I, 7, 25; discussion of relations between the two, MEISSNER, *SB. Berl.* 1917, 282 ff.; *ZDMG.* LXXII, 46 ff.; LANGDON-GARDINER, *Journal* VI, 179 ff.; LUCKENBILL, *AJSL.* XXXVII, 190 ff.

⁶ *KBo.* I, 20; LUCKENBILL, *AJSL.* XXXVII, 209 f.

⁷ Cf. OLMSTEAD, *AJSL.* XXXVI, 135 ff.

the transmission of official letters from Babylonia to the Hittite land, Kadasman-Enlil should take action. Hattushilish is properly shocked by such a confession of weakness as that his messengers have been discontinued because of attacks by the Ahlame along the Euphrates. It is a word which is not good, and thereby the sovereignty of his brother suffers detraction.

The most serious sinner is Assyria. If its king detains a Babylonian ambassador in his land, this is an act of war, and surely Babylonia is not a conquered land. What king of Assyria is powerful enough to restrain his messengers? Kadasman-Enlil is a mighty man of valour, a youthful wild bull. The writer at last comes out plainly and begs him to go and spoil the hostile land, and kill his enemy, for the king who lays aside his weapons is sure to suffer in the end. Though the enemy land be three or four times as great as his own, let him march against it¹.

Such an attack against Assyria did actually take place. We are not told the result but we can conjecture. After a brief reign (1278—1270), the greater part of it in his minority, Kadasman-Enlil disappeared. Hattushilish had worked upon his youthful vanity to his destruction².

The last of the great Assyrian kings of the period was Tukulti-Ninib (1260—1232). Our records become more and more scanty. Assyria suffered from a series of weak kings and suffered from usurpations. For a period, it was even subject to Babylon. The alluvium had a moment of prosperity under Nebuchadnezzar I (1146—1120 [?]), but his successors were of little account. Egypt was slowly going down hill under the Twentieth Dynasty, whose kings were less and less able to hold their own at home. A son, Dudhalia, and a grandson, Arnuwandash II, followed the Hittite Hattushilish, and as late as the time of the second Aleppo and Carchemish were still in the Hittite sphere of influence, though fighting was necessary to retain their control³.

Our knowledge of Asia Minor and of north Syria comes to an end and the history is a literal blank for centuries. As the older civilized powers disappeared, barbarism descended. By the beginning of the fourteenth century, isolated Hebrew tribes, the Habiri of the Amarna letters, were working their way into Palestine, and with the breakdown of Egyptian rule there ensued those struggles so vividly portrayed in the book of Judges. Foiled in the attack on Egypt, the Philistines settled along the coast of the land to which they were to give the name of Palestine. In north Syria, the kingdom of Amurru, which we last see under Bantishinni as a Hittite vassal state⁴, seems to have lasted long enough to give later writers a picture of a great Amorite empire⁵. Soon it went down before the attacks of invading Aramaean tribes, who likewise settled in Mesopotamia and even in Babylonia. It may be that the Hittite empire fell beneath the blows of the Minoans who were being driven out by the invading Indo-Europeans⁶. But all is conjecture, since for their "period of the Judges" we have no contemporary tales.

¹ KBo. I, 10; LUCKENBILL, *AJSL*. XXXVII, 200 ff. wrongly assigned to Kadasman-Turgu; MEISSNER, *ZDMG*. LXXII, 45.

² Cf. OLMSTEAD, *AJSL*. XXXVI, 139.

³ KBo. I, 11; LUCKENBILL, *AJSL*. XXXVII, 207.

⁴ KBo. I, 8; LUCKENBILL, *AJSL*. XXXVII, 197 ff.

⁵ Cf. the evidence collected by CLAY, *Empire of the Amorites*.

⁶ MEYER, *Chetiv*, 70; W. OTTO, *Hist. Zeit.* CXVII, 225; MEISSNER, *ZDMG*. LXXII, 64.

THE GEOGRAPHICAL POSITION OF ARZAWA

BY THE REV. PROFESSOR A. H. SAYCE

The interesting article¹ of Mr. SIDNEY SMITH on the geographical position of the country of Kizzuwadna is one with which, I think, all students of the Hittite inscriptions will agree. Like the language of Arzawa, the language of Kizzuwadna was the same, or very nearly the same, as the official Hittite of Boghaz Keui, from which we may conclude that all three countries adjoined one another. Mr. SIDNEY SMITH however has not noticed that in *K. B. II, 3, I, 1* and *IV B. 14* Kizzuwadna is identified with Kumani or Komana, the woman Mastikka being called indifferently a native of Kizzuwadna and Kumani. And in view of the linguistic argument Kumani must be the southern and not the northern Komana. Whether Tarsus was a city of Kizzuwadna is another question; it seems to me more probable that it was in the territory of Arzawa. Atania, by the way, may be Adana.

We know from the Tel el-Amarna tablets that Arzawa was not far from the sea. In a recently published Boghaz Keui text (*B. K. VI, 28, 8, 9*) king Khattusilis III says: "From the Lower Country the Arzawan enemy came and he seized the Hittite lands; thenceforward he made the cities of Tyana and Uda (Hydê) his frontier cities" (*istum mat ali Sapliti nakru ali Arzawas uit nu apâs-a matâti Khatti Khartanut nu-[za ali] Tûwanuan ali Uda-una ZAK-an iyat*). "The Lower Country" was the district extending from the southern bank of the Halys to the Mediterranean. As Tyana and Uda, which is evidently the classical Hyde, as was first noted by HROZNY, had been in Hittite territory, the Arzawans who came from "the Lower Country" must have been the inhabitants of western Cilicia between the Bulgar Dag and the sea.

The whole passage from which this extract is taken is so full of historical and geographical interest that it is worth being translated in full. Before the foundation of the Hittite Empire by Subbi-luliuma, who was originally king of Kussar or Kursaura, the classical Garsaura, Khattusilis tells us: "In the beginning the Hittite countries were free from injury on the part of an enemy; then the Kaskian enemy came and seized the Hittite countries; thenceforward they made Nenassa the frontier city. Afterwards the Arzawan enemy came from the Lower Country, and he seized the Hittite countries; thenceforward he made Tûwana and Uda his frontier cities. Afterwards the Araunian enemy came and seized all the land of Gassi. Afterwards the Azzian enemy came and seized all the Upper Country; thenceforward he made Samukha the frontier city. [Then] the Isuwian enemy came and seized the city of Teharama. Afterwards the Armatanian enemy [came] and he seized the Hittite land; thenceforward [he made] Kizzuwadna the [frontier] city."

¹ Above, p. 45.

Nenassa may be the Nanessos of Ptolemy, though the Greek geographer couples the latter with Archelais, the modern Ak-serai. Nenassa adjoined Khubisna (Kybistra) and Tûwanua (Tyana) according to *B. K.* III, 1, I, 9. The Gassi are the Kases of classical geography. Azzi lay in the north in the direction of Paphlagonia. Isuwa is the Isua of the Assyrian texts about midway between Diarbekir and the Arsanias river, and Tegarama, as was pointed out by HROZNY, must be the Togarmah of the Old Testament which DELITZSCH long ago showed is called Til-Garimmi in the Assyrian inscriptions. We do not know the situation of Armatana, but it would appear that it adjoined Kizzuwadna, which we may gather was a name applied to a city as well as to a country.

(*B. K.* means *Keilschrifttexte aus Boghazköi* published by the German Oriental Society.)



a



b

THE CORN-'arūseh

- a* Two examples from el-Lahūn, the upper one new, the lower some years old.
b In winnowing scene, Thebes (N. DE G. DAVIES *Tomb of Nakht*, Pl. XX).

SOME OCCURRENCES OF THE CORN-*'arūseh* IN ANCIENT EGYPTIAN TOMB PAINTINGS

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In the magnificent volume in the Tytus Memorial Series on the *Tomb of Nakht at Thebes*, recently published by Mr. N. DE G. DAVIES for the Metropolitan Museum of Art¹, there is included among the various harvesting scenes one depicting the grain being winnowed² (Pl. XXVI, fig. b). The chief point of interest in this last mentioned scene is the inverted crescent-shaped object at the top of the brown semicircle, which represents the edge of the winnowing floor. Mr. DAVIES is the first archaeologist to draw attention to this object, and the importance of his discovery leads me to quote in full his remarks on the subject. I am also indebted to Mr. DAVIES for kindly permitting me to make use of his illustrations for this paper.

Mr. DAVIES comments at some length on this particular object and puts forward various suggestions as to its significance. Under the inverted crescent is a red vase, the crescent itself, so Mr. DAVIES maintains, having been black in colour and in shape most resembling the hieroglyphic form of the crescent moon (☾)³. Mr. DAVIES here adds a footnote stating that "the moon itself is generally depicted with the concave side of the crescent uppermost and is colored yellow. The black tint here used might indicate the shadowed orb out of which the new moon is born as an invisible streak of light; but it might also be due to a confusion with the similar word-sign for the black cob of the carob⁴." Mr. DAVIES suggests that the cup contains offerings laid before a deity, and that "the texts in the other tombs leave little doubt that the picture depicts the harvest festival at the turn of the month when Ernutet was specially worshipped. As the object of worship bears no possible resemblance to Ernutet, the conclusion is that the offerings are laid before either the waxing or waning moon⁵."

In another footnote⁶ Mr. DAVIES puts forward suggestions based on evidence obtained from parallel scenes in other New Kingdom tombs at Thebes. He says: "The original design may be lost to us, but the Tomb of Nakht seems to be nearest the source. In Tomb 38 a whole wall is dedicated to the harvest. In the lowest register the agricultural scenes on Pl. XXI are repeated with some variations. In the top register men are measuring the standing corn. In the middle register men are bringing produce to their master, who sits in a kiosk. At the other end Joserkerasonb makes a burnt offering (1) to Amon

¹ New York, 1917.


² *Tomb of Nakht*, Pl. XVIII.

³ Op. cit., p. 63.

⁴ Op. cit., p. 63, footnote 1.

⁵ Op. cit., p. 64.

⁶ Op. cit., p. 64, footnote 3.

(whose figure is totally erased) and (2) to 'revered Ernutet, lady of the granaries,' figured as a cobra on a basket. The accompanying inscription is as follows: 'The scribe of the corn [of Amon] Joserkerê, offering all manner of good and pure food [to Amon] in every shrine of his on this day of the measurement of the *sek* grain of the twenty-seventh day of the fourth month of springtime (the eighth of the year) in the island (*ma.ut*) of Ernutet?, whose *x* is on the threshing floor (? *kah*),¹ *x* being a sign consisting of a crescent over a solid triangle  and thus closely resembling the mysterious group, which is again depicted here. Either deliberately, or because it was misunderstood, the ends of the crescent are fringed, as if they were wings, and a row of red spots is painted on the blackish body² (Pl. XXVII, fig. a). The swelling in the center has become a protuberance into which the ears of corn have been taken up from the dish. The whole in short, seems treated as a winged thing too swiftly swooping to have defined shape or color, and it is conceivable that the first crow that carried off the offering was transformed by popular superstition into a gratified divinity."

"Similarly in the sculptured Tomb no. 57 (Khâembêt), two scenes come into consideration. In one (PRISSE, *Monuments*, Pl. XLII), a burnt offering is made by Khâembêt to Ernutet, who is pictured as a snake-headed goddess seated on a throne and suckling a boy. The inscription is 'Khâembêt offering all things good and pure to Ernutet, lady of the granary, on the first day of the first month of summer (the ninth month of the year), this day of the birth of Nepy.' Here again we have that somewhat rare thing in tomb-scenes, a date, and the fixing of the festival depicted to the appearance of the new month or the new moon in the arms of the old. (In the contemporary Tomb 48 a similar figure of Ernutet is associated with the twenty-seventh day of the eighth month, harvest day according to Tomb 38.) The festival thus seems to have lasted four or five days. On the first of them the standing corn was measured by the officials that the yield might be estimated and the tithes assessed. Then the corn was cut and trodden out, and at the winnowing on the first of the new month offerings were made to the divinities concerned."

"A second scene in this tomb shows the harvest field, and here many of the incidents are obviously taken from the same source as those of Nakht (PRISSE, *L'Art Egyptien*, II, Pl. 20); among them the winnowing scene. The offering to the divinity of harvest is set at the side of the floor, there being no room above it³. The gifts are more generous, but the strange object of veneration is almost exactly the same as in Tomb 38, save that it is set upright and that the protuberance seems to be more definitely conceived as two grasping hands, which have seized the ears of corn and removed them from the dishes⁴. The spots are also more pronounced. For a later association of the snake-goddess with the harvest and also with the moon see WEBER, *Ägyptisch-griechische Terrakotten*, pp. 42-44, 177."

Mr. DAVIES suggests⁴ as the only other alternative explanation which he can give that the mysterious object in Tomb 38 and 57 is "the rude form of a bird or man, whether intended as a scarecrow or a god of harvest, or both in one, formed out of a sheaf of corn or straw and daubed with clay to give stiffening and admit of hands being affixed. As Nepy is sometimes depicted with a sheaf on his head, it would have a rude

¹ See *Tomb of Nakht*, fig. 11, p. 63.

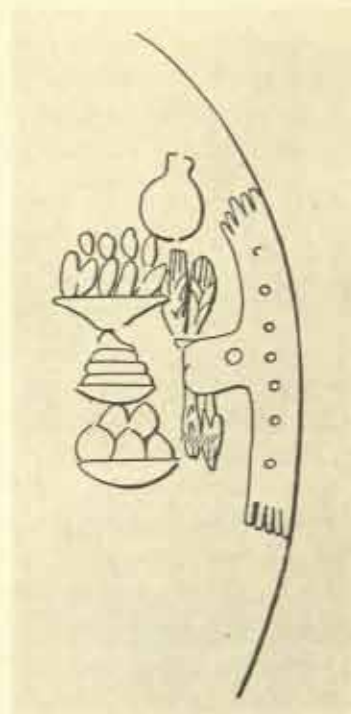
² See *Tomb of Nakht*, p. 63, fig. 12 and fig. b, Pl. XXVII in this article.

³ See fig. b, Pl. XXVII.

⁴ *Op. cit.*, p. 65.



a



b



c

a, b THE CORN-*aruṣeh* IN THEBAN TOMBS OF DYN. XVIII

(N. DE G. DAVIES, *Tomb of Nakht*, p. 63, Figs. 11, 12)

c THE *mueddin* OF EL-LAHŪN RIDING HOME WITH GIFT OF FIRST-FRUIITS

resemblance to him. In certain rites of the *sed* festival at Soleb the muffled figure of the king is seen receiving ears of corn in his hands in exactly the same way as here. I have seen a rude male figure, made as I have suggested, set up on the edge of the cornfield in modern Thebes, apparently as a guardian spirit, since I saw at the same time a mannikin nailed over the door of the village grinding mill. But we should have to assume that either the artist of Nakht or the other copyists misinterpreted the original design, since in our tomb it is obviously not the representation of such a figure¹."

Mr. DAVIES finishes his discussion of this obscure point as follows: "It only now remains to add that these two detailed representations of harvest, and of a vulgar act of worship which the owners of the tombs were perhaps half ashamed to depict, are due to the professional interest of these men in the subject, one being a registrar of corn and the other a superintendent of granaries. Perhaps Nakht, too, had close official connection with the corn supply, since he was concerned as a serving-priest with the supply of loaves to the private altars²."

I had the opportunity of seeing Mr. DAVIES' publication on the Tomb of Nakht before my return to Egypt last autumn. It immediately occurred to me that this, to him, mysterious representation, was probably nothing more nor less than the "corn-maiden" so well known all over Europe. I thought it prudent, however, before bringing forward my suggestion in print, to see if any such form of corn-maiden still existed in modern Egypt. For several months I made my head quarters in the little village of El-Lahūn in the Fayūm. I lived in my servant's house, and hanging up in the room which was used as the store-room I saw what appears to me to be a similar object to that represented in the Tomb of Nakht at Thebes and in the New Kingdom Tombs, nos. 38 and 57. In modern Egypt this object is called the *'arūseh* (bride), and the particular form which I saw at El-Lahūn is also to be found in other parts of Egypt³. In outline it bears a strong resemblance to the objects discussed by Mr. DAVIES. It is made out of the finest ears of corn which are plucked before the corn is cut and plaited into this form. The *'arūseh* is often hung up in the house, usually in the room in which the stores of food are kept, to bring prosperity in general to the house and to ensure a plentiful supply of food. The grain is sometimes taken from the *'arūseh* and mixed with the seed sown in the following year to secure a good harvest. Again, the *'arūseh* may be kept in the house till it drops to pieces, when it is replaced by a new one at harvest time.

A shop-keeper, if he does not own a field, will purchase an *'arūseh* to hang in his shop as a charm to bring him plenty of customers and thereby ensure him prosperity. Pl. XXVIII shows a shop entrance with the *'arūseh* hanging in the centre⁴. This shop in question is at Hawara, a village adjoining that of El-Lahūn.

An owner of land will sometimes go to the tomb of a sheikh and offer up prayers for a plentiful harvest, promising him that if his petition is granted he will present a corn-*'arūseh* to him as a votive offering. I have seen such an object hanging up in the tomb of a sheikh at Dimishkin in Fayūm province.

The following information I obtained from Meir in Asyūt province, and I was told that such beliefs are prevalent all over that district. Here the owner of cornfields will

¹ Op. cit., p. 65.

² Op. cit., pp. 65—66.

³ See fig. a, Pl. XXVI.

⁴ The *'arūseh* in this photograph looks as if it were of a different shape to the other modern examples; this is merely due to the fact that the wind twisted it round just as I took the snap-shot.

place the 'arūseh in the centre of heaps of corn to ensure a further plentiful supply. The ancient pictures showing the 'arūseh on the winnowing floor suggests that such an idea was prevalent in those times. In this province, as in the Fayūm, it is hung up by people in their houses as a charm for prosperity. On the day of *Shemm-en-nasim*, the Coptic Easter Monday, the 'arūseh hanging in the house is sometimes decorated with roses. I was told that it is also occasionally decorated with ribbons, though, I gather, not necessarily on the day of *Shemm-en-nasim*.

In view of the very conservative character of the Egyptians and the number of survivals which still exist in the country it seems to be quite possible that the mystery surrounding the figures b, Pl. XXVI and a and b, Pl. XXVII, taken from the harvest scenes in the New Kingdom tombs at Thebes can be solved by comparison with modern custom. The outline of these forms, as I have pointed out before, is very similar to that of the modern corn-'arūseh in fig. a, Pl. XXVI. The frayed ends in fig. a and b, Pl. XXVII probably represent the stalks of the corn, the heads of the wheat also standing out horizontally on either side of the central projection, instead of hanging vertically as in the modern examples. The projection is possibly a conventionalised form of the ears of corn seen in the specimens I collected, fig. b, Pl. XXVI. Pl. XVIII in *The Tomb of Nakht* shows a still more conventionalised treatment, no details of the ears of corn being represented. The ears of corn in fig. a and b, Pl. XXVII, which Mr. DAVIES says have been taken up from the dish, are, I suggest, merely part and parcel of the corn-'arūseh, the so-called "hand" in fig. b, Pl. XXVII, being a conventionalised drawing of the ears of corn, which roughly are in the form of the protuberance, in the modern examples.

The dish which Mr. DAVIES suggests may contain offerings, possibly holds water as a charm to ensure a plentiful supply of that commodity, thereby preserving the life of the crops. In fig. b, Pl. XXVII there is a water bottle and also offerings of bread.

In modern Egypt the winnowing is always done out of doors, and when the process is completed the heaps of grain are left on the winnowing floor for one night. The owner of the grain will then take some of the usual flat, round loaves of bread and stick them at intervals in among the grain, where they are left till the morning when they become the perquisite of the man who carries the grain to the owner's granaries. I have found this to be the custom in the Fayūm, and it may also exist in other parts of Egypt. Possibly it is a survival from early times when definite offerings of bread were made to a corn-goddess, or to the ancient corn-'arūseh as in fig. b, Pl. XXVII.

I may mention further that it is considered a meritorious act for the owner of a cornfield to present some of the first-fruits to the *mueddin* of the village mosque, to the *muzeyyin* (barber) and to a few very poor men who are known to be of high character; some may also be presented to the village *zummarah*-player (piper). This custom can be paralleled in ancient Egypt. In the second of the famous Contracts of Defaihap¹ engraved on the walls of his tomb chapel at Asyūt the following passage occurs: "That which he (Defaihap) gave to them (the staff of the temple of Upwawet at Asyūt) in return (i. e. for bread presented to his statue) was one heka'et of northern barley for every field of the endowment (pr-dt), from the first-fruits of the harvest of the nomarch's estate, just as (or, 'in the measure which') every common man of Siūt gives of the first-fruits of his harvest, for he was the first to cause every one of his peasants to give it to this temple from the first-fruits of his field."

¹ See REISNER, *The Tomb of Hepzefa, Nomarch of Siut* in *Journal V*, 83.



SHOP IN HAWÂRA WITH CORN-'*arûseh*' HUNG FROM THE LINTEL

The offering of first-fruits to the *mueddin* is perhaps a survival of the custom referred to in the above quotation, the *mueddin* and the mosque taking the place of priests and temple. The custom of presenting the first-fruits in the form of a corn-'arūseh to a dead sheikh, also alluded to above, may likewise be a survival of a custom practised in ancient Egypt.

Fig. c, Pl. XXVII shows the *mueddin* of one of the mosques at el-Lahūn returning home on his donkey with some of the first-fruits which have been presented to him.

Since writing the above Mr. HENRY BALFOUR has drawn my attention to harvest trophies of very similar form to the Egyptian corn-'arūseh from South-Eastern Europe. He also informs me that this type of "corn-maiden" (as it is often called in Europe), is characteristic of the whole Mediterranean area. Mr. BALFOUR has kindly permitted me to have two of the specimens, now in the Pitt-Rivers Museum, photographed to illustrate this paper. Pl. XXIX, fig. a shows a "harvest trophy" from Larnaca in Cyprus, presented to the Pitt-Rivers Museum in 1898 by Mr. E. T. ELWORTHY according to the label. It hung in the entrance to a house of the landowner and was given to Mr. ELWORTHY because the harvest was nearly ripe, when another would be brought from the fields and hung up in the same place; it was "considered a *porta fortuna*, Cyprus people considered it a first-fruit." Apparently the virtue attached to the "harvest trophy" in Cyprus is very similar to one of those claimed by the Egyptians for their "corn-'arūseh"—i. e. that it brings good luck to its possessor. Here also in Cyprus as in Egypt, it is made out of the first-fruits of the field.

Pl. XXIX, fig. b represents a "corn-sheaf trophy" from Dulcigno district, Montenegro. This specimen was purchased by the Museum in 1907.

I have not been able to find any further information on the corn-maidens from these two countries, in spite of diligent search through a vast amount of literature. However, the chief interest lies in the fact that the *form* of the two objects illustrated is strikingly similar to those found in Egypt in the present day, and also, presumably, to those in use in that country in ancient times.

I may mention that, as in Cyprus, the corn-'arūseh in Egypt is sometimes hung above the entrance of a private house. I have seen the doors of two or three houses thus decorated in a village street, but lack of sunlight made it impossible to get a satisfactory photograph.

In view of the fact that this particular form of harvest trophy was in use in Egypt in very early times (always provided that I am right in my explanation of the "mysterious object" depicted in the *Tomb of Nakht*), it would seem possible that a similar type of "corn-maiden" was imposed on the Mediterranean area by Egypt. I am not aware if it is possible to trace back the use of such a trophy to an early date in the former area.

The harvest trophies preserved from the first or last sheaf of corn in most European countries, are, so far as I know, of an entirely different form to those described in this paper. Thus the Egyptian type of corn-'arūseh appears to be confined to Egypt and the Mediterranean countries.

'arūseh in Egyptian Arabic has several meanings. Primarily it means a bride; it is also the usual word for a doll. The same name, 'arūseh, is also applied to ornaments, such an ornament, for example, as is attached to a door to decorate it. I have been told that the reason why this term is applied to such ornaments is that they are beautiful, like a bride.

Professor J. L. MYRES has suggested to me that the Egyptian corn-*'arūseh* shows signs of an anthropomorphic origin. It may therefore represent a girl, as is the case with our own "corn-maiden." Hence the name *'arūseh min el-ḡamḡ* "the bride from the corn," probably meaning "made out of the corn."

DESCRIPTION OF PLATES

Plate XXVI

Fig. a. Two modern corn-*'arāis* from Egypt. The upper one was made out of the first-fruits of a corn-field this year (1922) at El-Lahūn, and was presented to me. The lower one had been hanging for three or four years in the house of Hidayh 'Abd-el-Shāfi (in which I lived for several months) in the room in which the stores of food were kept. They were both suspended on the wall shown in the figure in order to obtain a better light for taking the photograph.

Fig. b. The ancient corn-*'arūseh* at the top of the winnowing floor, from the *Tomb of Nakht*, Pl. XVIII.

Plate XXVII

Fig. a. An ancient corn-*'arūseh* from an illustration in the *Tomb of Nakht*, p. 63, fig. 11.

Fig. b. An ancient corn-*'arūseh* from an illustration in the *Tomb of Nakht*, p. 63, fig. 12.

Fig. c. The *muccidin* at El-Lahūn riding home with gift of first-fruits.

Plate XXVIII

The shop at Hawāra, with the owner standing in the centre. Close to his head hangs the corn-*'arūseh*, turned nearly at right angles to the camera.

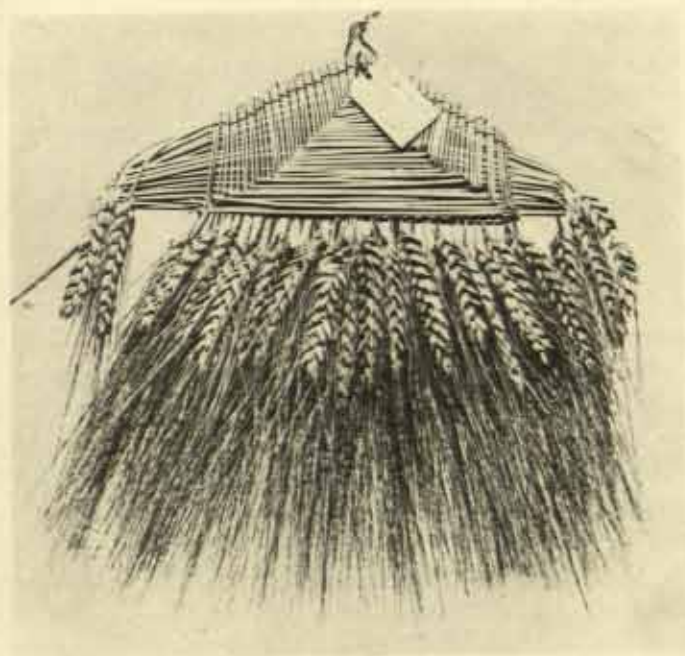
Plate XXIX

Fig. a. A harvest trophy from Cyprus. Specimen in the Pitt-Rivers Museum, Oxford.

Fig. b. A harvest trophy from Dulcigno district, Montenegro. Specimen in the Pitt-Rivers Museum, Oxford.



a



b

CORN-MAIDENS, in the Pitt-Rivers Museum, Oxford
a from Cyprus, *b* from Montenegro

THE DISCOVERIES AT TELL EL-'OBEID IN SOUTHERN BABYLONIA, AND SOME EGYPTIAN COMPARISONS

By H. R. HALL, D. Litt., F. S. A.

A precedent for the publication in the *Journal of Egyptian Archaeology* of an article dealing with the results of excavation in the sister-land, Babylonia, may be found in the very interesting discussion of the Treasure of Astrabad by Prof. ROSTOVITZEFF, which appeared in the volume for 1920¹. It is true that the treasure of Astrabad is said to have been discovered not in Babylonia but in Northern Persia, near the Turkoman border, but it is certainly Sumerian, as Prof. ROSTOVITZEFF said, and in the opinion of some was more probably made in Babylonia and exported to Persia, peacefully or otherwise, than of local fabric. Whether therefore it is a proof of the existence of a local Sumerian or Sumerized art up north, as Prof. ROSTOVITZEFF seems to think, is doubtful. However that may be, the publication of the Russian professor's article in our journal enabled it to be illustrated far more satisfactorily than it could possibly have been in any of the British scientific journals dealing with Mesopotamian study. As usual, these journals are concerned mainly with history and philology, and their format is not adapted to adequate illustration of works of art, the consideration of which has, it is true, come but rarely within the purview of our Assyriologists. Let us hope that in the future cuneiform scholars will turn their attention towards archaeology and art more than they have in the past. In any case the provision of a British journal in which Mesopotamian art can properly be exhibited is a crying need, though happily the place of such a journal can occasionally be taken by the *Journal of Egyptian Archaeology*. This can the more appropriately happen when, as in the case of early Sumerian art, interesting comparisons and parallels can be drawn with the contemporary art of early Egypt.

After having slumbered for some years, the question of early relations between Egypt and Babylonia has been awakened by M. BÉNÉDITE's publication of the extraordinary knife-handle from Gebel al-'Arak², with its apparent mixture of predynastic Egyptian with Babylonian, or as some have suggested, even Elamite forms; and the matter seems now ripe for further discussion. The pages of an Egyptological journal are the most appropriate medium for the discussion of a question so vital to our knowledge of the early history of Egypt. And the discoveries of the British Museum expedition at Tell el-'Obeid in Southern Babylonia in 1919 have suggested several interesting comparisons with early Egyptian art, which may be added to our dossier on this subject. On this account I publish here a description of the finds, with photographs which the format of this journal enables us to reproduce satisfactorily.

¹ *Journal* 1920, p. 4 ff.

² *Fondation Eugène Piot: Mémoires*, 1916.

In this article I shall confine myself to a description and discussion of a single phase of the excavations of 1919¹, the work at Tell el-'Obeid. My work at Ur of the Chaldees itself produced little of interest from the Egyptian point of view: a scarab-mould of the sixth century B.C. was the only Egyptian or egyptizing object found, and the only other fact interesting in this connection is the persistence with which the Babylonian clung to the crouched posture in burial centuries after it had been abandoned in Egypt. And this is a parable, for it was not in this respect only that ideas similar in Egypt and Babylonia at the dawn of civilization were abandoned in

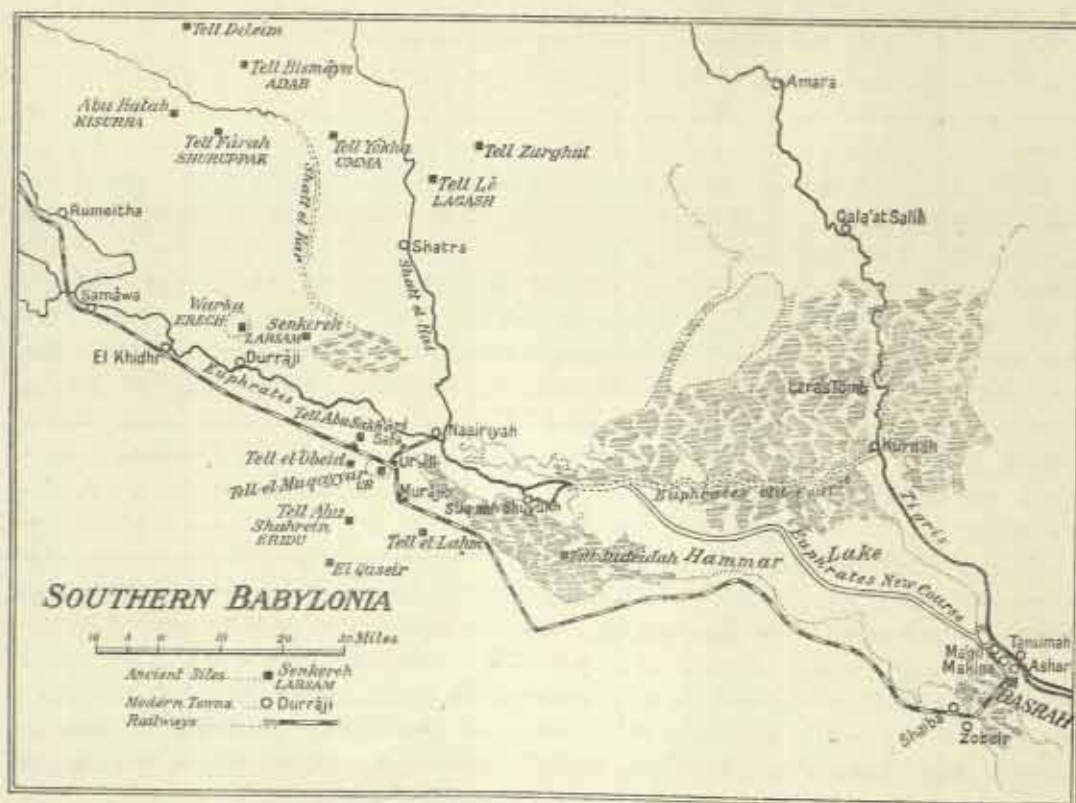


Fig. 1. Sketch-map of Southern Babylonia, shewing ancient sites.
(*Proc. Soc. Ant.*, Dec. 1919, Fig. 1, p. 23.)

Egypt comparatively soon. I may instance the representation of the lion in art. Both early Egyptians and Babylonians at first depicted the lion grinning in anger with teeth bared and tongue protruding. Before the Old Kingdom had run its course this convention had generally disappeared in Egypt in favour of the lion with its mouth closed, majestic in repose. But in Mesopotamia the old tradition persisted till the Persian period and till the days of the Arabs. Some new wind blowing from a different quarter than Babylon had been felt in Egypt during the first centuries of the Old Kingdom, and altered other things besides the method of burial and a convention in art.

¹ See HALL, *Proc. Soc. Ant.*, Dec. 1919, p. 22 ff.; *Journ. Centr. As. Soc.*, 1922, p. 119 ff.

At Shahrein, the ancient Eridu, I found much the same type of antiquities as had been discovered there by Capt. R. C. THOMPSON in the preceding year¹, the prehistoric pottery painted in black with geometric and naturalistic designs, (identical with that found by PÉZARD at Bushire², and closely akin to that of Samarrâ, yet unpublished), the coarser types of Susa³, the obsidian, flint and crystal flakes, cores and pegs, the fine sandstone and shell tesserae for inlay, the pottery sickles (whether merely votive or for actual use who shall say?) and curved "nails," the crude pots of Sumerian burials, the copper nails of the later Sumerian time, and also some gold,—one or two fragments of sheet gold, copper nails with gold heads, one solid gold nail, and a gold bead,—that had eluded THOMPSON's search in the previous year. On the other hand, I found no further fragment of that admirable aragonite vase found by THOMPSON with the relief of a woman (?) holding a double vase⁴, which must have been a *chef d'œuvre* of Sumerian art, and in its spirit reminds us so strongly of the reliefs of the steatite vases of Crete: nor did I find any similar fragment.

Some of the smaller objects found are of interest in connexion with the question of early Babylonian-Egyptian relations, as are similar objects from Tell 'Obeid, and these will be mentioned in due course.

The main work at Ur itself consisted of the excavation of what remains of part of the palace *Ê-harsag* (?), built by the king Ur-Nammu or Ur-Engur, of the Third Dynasty of Ur (c. 2300 B. C.), the dwelling place both of him and of his successor Shulgi or Dungi; of part of the temenos-wall of the Moon Temple and one side of the *zikkurrat* or temple-tower; of streets and houses in the S. E. portion of the mounds; and of several graves and tombs at various spots on the periphery of the site. Further, the probable site of *Ê-mah*, the temple of the goddess Ninsun, was identified.

A preliminary description of the work and of the remains discovered will be found in the *Proceedings* of the Society of Antiquaries, Dec. 1919. I have to express my thanks to the Society of Antiquaries for the loan of the following illustrations, Figs. 1 and 2; Pl. XXX, 2, XXXII, 1 and 4; XXXIII, 4; and XXXIV, 2 and 4.

At Shahrein I had set myself, in the short time at my disposal there, a task differing in scope and intention from that of my predecessor. He had sunk pits with the object of determining the stratification of the mounds; my object was to find the remains of buildings of a particular period, as at Ur, and obtain their plan. A complex of crude-brick houses was found and excavated that can be dated before the time of Bur-Sin I, the king of Ur who repaired the *zikkurrat* of the temple of Enki and refaced it with fine bricks bearing his name (c. 2300 B. C.). These crude-brick houses, with their covering of thick lime-plaster or stucco, sometimes decorated with horizontal bands of red and white, or red white and black paint, are of interest as specimens of Sumerian house-building. But, like Capt. THOMPSON, I found my chief reward at Shahrein in the prehistoric (?) painted pottery and objects of agate, aragonite, flint and obsidian, etc., that rains have washed out of the lower strata of the mound, so that they lie and can be had for the picking up on the fan of talus and detritus that lies round about the mounds.

¹ R. C. THOMPSON, *The British Museum Excavations at Abu Shahrein*, in *Archæologia*, LXX (1920), 101 ff.

² PÉZARD, *Mission à Bender-Bouchir*, in *Mém. Délég. Perse*, XV (1914).

³ E. POTTIER, *Céramique peinte de Suse*, in *Mém. Délég. Perse*, XIII (1922).

⁴ *Archæologia*, 1920, Pl. VIII and fig. 19, 1.

The same phenomenon exists at Tell el-'Obeid (Pl. XXX, 2, 3; XXXIV, 1), and this fact it was that first drew my attention to that place.

THOMPSON and I had of course been anticipated in our work at Ur and Shahrein by our predecessors in the fifties, LORTUS¹ and TAYLOR². The latter more especially did remarkable work (for the time) at Shahrein, and the British Museum already possessed antiquities of the early period, pottery sickles and cones, fragments of polished agate and aragonite vases, bits of gold and copper nails with their heads plated with gold, and so forth (of the kind which THOMPSON and I also found), that were brought back by him at the time of the Crimean War. But el-'Obeid is an entirely new site. While exploring the desert in the neighbourhood of Ur, I came upon this small mound about four miles westward of the latter place, with the same fan of detritus surrounding it as existed at Abu-Shahrein, but of course on a much smaller scale. No previous visitor had noted the spot or had picked up any of the thousands of fragments of painted pottery, flint, obsidian, and crystal flakes, nails and pegs, fragments of aragonite vases, inlay-plaques of aragonite, hard red sandstone and so forth, which strewed the desert as at Shahrein. Oddly enough however one saw but few of the extraordinary vitrified pottery sickles and curved convex-headed "nails" that were so characteristic of Shahrein, though the long conical "nails" were not uncommon, ranging, as at Shahrein, from large specimens of a length of several inches with a width at the broad end of an inch or so to small pencil-like objects an inch or sometimes less in length. What these objects are is undetermined. I suggest that the curved "nails" with convex heads may be rubbers: the rubber was taken between the thumb and the other fingers, the curved portion hooking round the thumb. The fact that at least two of these objects have been found at el-'Obeid with the heads much worn (Pl. XXX, 2) lends some plausibility to this theory. Otherwise these enigmatic objects are inexplicable, unless they are a form of decoration for stuccoed walls as the plain conical "nails" seem undoubtedly to be, judging from the evidence obtained by LORTUS at Warka³.

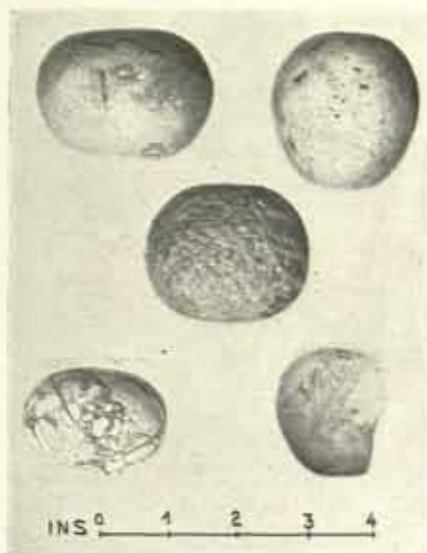
The mound suggested itself at once as a promising subject for excavation, and accordingly I began subsidiary operations there in April, sending a few of my Turkish soldier-diggers out by car every day from Ur, and spending part of every day there with them, while my British sergeant-major took charge at Ur in my absence. The military authorities had willingly placed at my disposal seventy Turkish prisoners of war, some of whom were chosen because they had previous experience of archaeological excavation in Anatolia. My Arab reises from Babylon, who had previously worked with KOLDEWEY, were of great use in helping to train the Turks to dig. One advantage of the latter was that being prisoners they had no inducement to steal. They were regularly searched and were not allowed to sell or hand over anything to Arabs, and on one occasion at least when an Arab was suspected of stealing, he was promptly given away by the Turks.

The name of the mound was given me in two different forms. The settled Arabs of the *Rif* called it *Tell el-'Ubeyd* (or 'Obeid as one may conventionally write it), while

¹ W. K. LORTUS, *Travels and Researches in Chaldaea and Susiana*, p. 128 ff.

² J. G. TAYLOR, *Notes on the Ruins of Mugayer* in *J. R. A. S.*, XV (1855), p. 260 ff.; *Notes on Abu-Shahrein and Tell el-Lahm*, (ibid. p. 404 ff.).

³ *Researches in Chaldaea, &c.*, p. 187. An example of these "nails" embedded in stucco, found by LORTUS, is in the British Museum (Nr. 115711).



1. Egyptian and Babylonian Mace-heads.



2. Painted pottery, &c.: el-'Obeid.



3. Painted pottery: el-'Obeid.



4. Egyptian carinated bowl of quartzite with Cretan liparite fragments.



5. Stone and pottery rosette-cone: el-'Obeid.

the desert-nomads of the *Chal* called it *Tell el-Ma'abed*, "The mound of the Place of Worship," a name which, though one knows nothing of its history, is at any rate appropriate, since the place may have been a small temple.

On trenching into the mound (Pl. XXXIV, 4; Fig. 2), which is only about 150-170 feet (50 metres) in length and about 20 feet (6 metres) high, we soon struck a panelled wall of the oldest type of construction, *i. e.*, small burnt bricks of the plano-convex form, which were not used after the time of the dynasty of Akkad

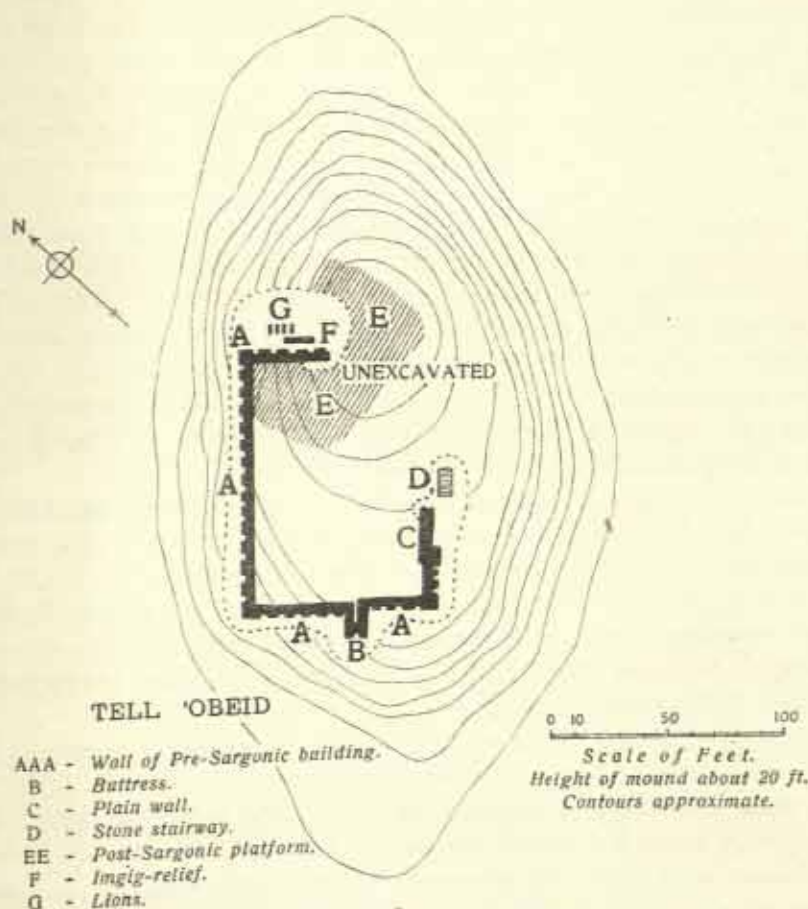


Fig. 2. Sketch-plan of Tell 'Obeid.

(Modified from *Proc. Soc. Ant.*, Dec. 1919, Fig. 20, p. 37.)

(c. 2850-2700 B. C.). And these particular plano-convex bricks, measuring only 8 by 6 by $1\frac{5}{8}$ inches (20.3 by 15.2 by 4 cm.) are of a very ancient and primitive type. The wall, followed round for the greater part of its length (until the excessive heat of the end of May compelled us to cease operations), proved to be the base of an early oblong building, from its shape and orientation perhaps a small *zikkurat*¹, measuring 110 feet (33.5 metres) long by 75 feet (22.8 metres) wide. Above it had been built a platform of large oblong crude bricks, with a facing and pavement(?) of burnt bricks, measuring

¹ DR. ANDRAE is however of opinion that it was more probably a small fort.

11½ by 8 by 2½ ins. (29.2 by 20.3 by 6.3 cm.) stamped by king Dungi. The old building was then undoubtedly very much older than the time of Dungi, and there is very little doubt that it was considerably older than that of Sargon of Akkad. This platform, which may have been intended as the base of a new *zikkurrat* (?), to be placed on the razed ancient building (there is no doubt that it must have been razed for Dungi's purpose, and the height of the ancient wall, about 4 feet, is the same all round, so far as it has been excavated) has disappeared except at the south-east end.

Its bricks are interesting on account of the preservation in them apparently as a more or less decorative feature, of two holes side by side in the centre of one face; in the more ancient plano-convex bricks they are placed diagonally across the convex face in such a position that they seem clearly to be devised for the purpose of carrying the brick, by the insertion of thumb and forefinger, when it was wet. They may also have fulfilled the function of affording a grip to the bitumen "mortar." In Dungi's bricks they have evidently lost their original function and have become mere ornaments (Pl. XXXIV, 3).

At the south-east end of the building the platform of Dungi appeared to extend a short distance beyond the limit of the older building, and in order to trace the wall of the latter it was necessary to remove some of the crude-brick foundation of the platform. Beneath this we found the deposit of copper figures and other objects which is the most important discovery made by the expedition, and is specially interesting on account of its close analogy to the deposit of archaic and Sixth Dynasty Egyptian objects, including the copper or bronze figures of Pepi I and his son, found at Hierakonpolis by Mr. J. E. QUIBELL and Mr. F. W. GREEN in 1896¹.

Owing to the necessity of bringing the work to a close at the end of May, we do not know yet whether the whole of the deposit has been recovered, and further work, which we hope will not be long delayed, may reveal further remains. So far as the excavation has gone, the deposit occupies a space of about 20 feet by 10 feet, on the same level as the ancient wall, so that the impression is given that the objects were so to speak stamped down into the mud, and the bricks of the later platform laid on top of them without the slightest compunction.

On the top was a mass of twisted, crushed, and contorted copper—pipes, small pillars, bars, and sheets—lying in incomprehensible confusion, and nearly all in an irremediable state of oxidization. Beneath this layer, and luckily preserved by it from great damage, were found the copper foreparts and heads of four lifesize figures of lions (Pl. XXXIII), each head filled with bitumen mixed with straw and clay, so that the metal formed a mask over the bitumen, which preserves the form of the metal mask, like a cast from a mould. Owing to the bad state of the metal, this fact is most fortunate. Each of these heads had large eyes of red jasper, white shell, and blue schist, the jasper representing the iris, the shell the white of the eyeball, and the schist the lids: each eye being in three pieces, accurately fitting, and fastened by copper wire into the bitumen at the back. Each head was also furnished with teeth of white shell, the incisors being separate, the molars in one piece at either end of the mouth: all being fastened, like the eyes, with copper wire to the bitumen core. In the mouth of each was a red jasper tongue (missing in one case). The lion was represented grinning ferociously, with wide open eyes, according to the usual Sumerian convention.

¹ QUIBELL and GREEN, *Hierakonpolis I and II* (1900, 1902).

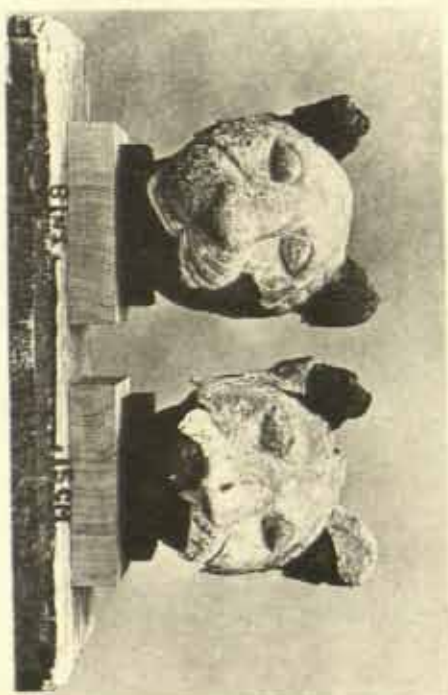


1. Stone figure of Kur-Il (?).

TELL EL-'OBEID.



2. Figure of Kur-Il (?), on the site.



3. Cat- or Panther-heads: Bitumen and copper.

Of these heads (two of which are here illustrated) the bitumen core of one is so badly damaged that it is doubtful whether it can be restored satisfactorily. The foreparts (there were no hinder parts) were formed of hammered copper plates roughly fastened together with nails over a wooden block or *âme*, which when found had almost entirely disintegrated and had become replaced by infiltrated clay. The copper plates rudely represent the fell of the animal. The heads appear to have been cast, according to the opinion of practical metal workers, and the bitumen was rammed into them when hot with the idea of strengthening them. In each bitumen head there is a rectangular space at the back, now filled with clay, which was presumably intended to take a wooden neck projecting from the "body." (Pl. XXXIII, 4.) The fact that the heads were cast would seem to be shewn by the fact that the metal has sagged in places, so that the bitumen "casts" are somewhat misshapen, at any rate in the case of one of the four large heads. This sagging is much more strongly marked in the case of a fifth lion-head, smaller than the others (Pl. XXXIII, 2), of which the copper covering has entirely disappeared, leaving merely a green smear on the bitumen face. One eye and the teeth of this head have also gone. This head is so misshapen on one side that the copper may be regarded as having collapsed in the casting. And the same thing is noticeable in the case of one of the two panther or cat-heads, next to be mentioned (Pl. XXXI, 3; XXXII, 1), in both of which the copper is well preserved. In the cat-head in question one side of the muzzle has cracked and has sagged so heavily that the animal looks as if it were suffering from severe toothache. The panther or cat-heads are life-size, and have no separate eyes or teeth, the features being indicated only by chasing. All the heads were of course chased after the casting to indicate the whiskers, ruff, &c.

The casting of these heads, in spite of the difficulty of the process owing to the greater softness of copper than of bronze, is very interesting. It must be the first, or one of the first known instances of casting, and that the Sumerian metal-workers were not yet very skilled in the process is shewn by the cracking and collapsing of the heads. The idea that the head could be strengthened by the bitumen also points to inexperience. But that this idea persisted to the end is shewn by the interesting reference to the statue of Bel in *Daniel* II, 34, and in the Apocrypha (*Bel and the Dragon*, verse 7), which was brass without and clay within¹.

Besides these heads were two small copper bulls, about the size of hounds, represented walking, with their heads turned to the left. Unhappily one of these bulls collapsed within a few minutes of its discovery into a heap of green powder, leaving only the head more or less intact, but luckily not before it had been photographed in position. The other can be put together again though when found its copper covering had cracked into pieces only held together by mud. A fragment of its wooden *âme* is preserved. One of the bulls had golden horns, one of which was found of thick gold, hollow, and filled with bitumen (Pl. XXXII, 2).

The figures of these bulls were very coarsely moulded: they may indeed have been cast, but the fact is not yet satisfactorily established. A detached bull's head, with no

¹ It may be, of course, that the theory of casting is erroneous and the heads were hammered over a bitumen model which has survived, but in view of the sagging and cracking of the metal this appears improbable.

body discoverable, was also found, which is very fine: one of the best examples, not only of Sumerian, but of any ancient animal portraiture known (Pl. XXXII, 3).

The other process is exemplified in the case of four small copper heads of birds, rudely made of hammered copper plates nailed together and (evidently) on to a wooden block which has disappeared. They may represent the birds of the god Enurta (= Horus) or the goddess Bau.

All these copper figures were found close to the four large lion-heads, and all the bulls lay between them and an object which in some respects is the most important object of the whole find. This is a great relief of copper: a slab of the metal, measuring 8 feet long by 3 feet 6 inches high (2.44 m. by 1.07 m.) on which in relief was represented the lion-headed eagle, *Imgig*, the mythical bird of the god Ningirsu, holding two stags by their tails. The stags are in high relief, with their heads turned outwards and practically in the round: their antlers of wrought copper are entirely free from the background and projected beyond the rectangular framework or border of the relief: a feature new to ancient oriental art. The heads were cast, but, apparently, the bodies and legs were hammered and nailed together. The antlers (of a remarkable size and number of tines!) were wrought and hammered, and soldered into their sockets with lead. This lead had so expanded as to burst the heads, which when found were only held together by mud: one of them has been restored as an earnest of what we hope to do with the whole relief later on (Pl. XXXII, 4). This antithetical group is well known in Sumerian art, and a good example of it may be seen engraved on the silver vase of Entemena, in the Louvre¹: another is the relief on a mace-head in the British Museum². The el-'Obeid relief is the largest instance of it yet known, and as a work of ancient art is unique (Pl. XXXII, 5).

Imgig sometimes holds lions, sometimes ibexes, sometimes stags in his talons. In the case of our relief stags have been chosen. I have supposed³ that he was regarded as the cognizance, so to speak, of Lagash, the city of Ningirsu, and that his occurrence at Tell el-'Obeid shews that when these copper objects were made Ur and its territory appertained to Lagash. If this were so, the callousness with which Dungi (if it was he) threw down these earlier monuments into the mud and built his platform on top of them would be explained: being himself a native king of Ur, he would regard them as relics of the "foreign" domination of Lagash. Such is my own interpretation of the facts, but it seems that some Assyriologists doubt whether such a political meaning should be ascribed to the emblem of Ningirsu, regarded as a sort of Lagashite lion of St. Mark: it may have had no such significance in the minds of the Sumerians.

Already when discovered the figure of *Imgig* himself was very shadowy, and could be discerned only with the eye of knowledge and that of faith, for the metal was so terribly oxidized that hardly any of it remained except the green powdery fragments that represent the wings. The stags on the other hand are fairly well preserved. It is hoped that it may eventually be possible to put the whole relief together. When found it stood within a foot of the *zikkurrat*-wall, parallel with it, and on the same level. Whether this was its original position or not, or whether it was originally a decoration of the

¹ DE SÁLLEZ, *Découvertes en Chaldée*, Pl. XLIII (bis).

² BUDGE, *Hist. Eg.* 1, p. 67.

³ *Proc. Soc. An.*, Dec. 1919, p. 37.



1. Bitumen panther-head with copper „mask“.
(scale 1:5.)



2. Gold Bull's horn.
L. $3\frac{1}{4}$ in. = 8.2 cm.



4. Copper stag's head from Imgig-relief.
(scale 1:3.)



3. Copper Bull's head.
(scale 1:5.)



5. The Imgig-relief.



wall, placed on a bracket or corbels a few feet above the ground, and had slipped down to the position in which it was found, it is difficult to say.

It is a part of the same scheme as the lions and the bulls, and is of the same period. The bulls should be guardians of the entrance to the building: the lions have been supposed to have been supporters of a great copper throne-platform of the type still known to the Orient, like the Peacock throne that Nadir Shah took from Delhi to Tehran. Babylonian kings were wont to sit on their thrones outside the gates of their cities, there to receive suppliants and deliver justice, as Sargon of Akkad is represented in the "King of the Battle".¹ The mass of smashed-up copper that was found above the lions may be the remains of the throne itself. Renewed excavations at 'Obeid may, we hope, throw light on this point.

Close to the bulls were found two pillars of copper with clay (originally wood?) inside them, and two of mosaic work (Pl. XXXIV, 2), with triangular tesserae of red sandstone, black bituminous limestone, and mother-of-pearl, arranged in geometric patterns and fastened at the back by means of copper wire through V-shaped perforations into a layer of bitumen which was apparently spread over a wooden core now replaced by clay. These pillars and those of copper had no bases, and rested on nothing but the earth: they had preserved only about three feet of their height, and that only because they had been knocked down and lay on their sides at an angle of 45 degrees: no capitals then were visible, either. This mosaic work is highly curious, and has already been found at Tepe Musyan, but on a much smaller scale.² It is strange to find an example, at the very beginning of civilization in these parts, of a style of art still extremely fashionable in the Arab and Indian East. My Indian mechanics were delighted with this discovery, which confirmed their idea that the lions were really ancient Indian and that in days long past their ancestors had conquered Babylonia (an idea very prevalent among the Indian rank-and-file in Mesopotamia). I fully expected to see offerings of *tulsi* and *ghî* placed before the lions, or find their faces smeared with red paint!

The primitive three-colour scheme of red, white, and black seems to be characteristic of early Sumerian art. I found it in the crude decoration of the Sumerian houses at Shahrein with their bands of red white and black, or plain red and white paint on the stuccoed crude brick walls (see above). And one sees it also on the curious rosette-cones (if they may so be called) which were found at el-'Obeid mixed up with what has already been described. They are cones of pottery, having heads at the broad end expanding into flowers, with six or eight petals of red sandstone, black bituminous limestone (as in the case of the pillars), and white limestone, fastened on as before with twisted copper wire through a V-shaped perforation (Pl. XXX, 5). Judging from the analogy of the plain cones, already mentioned, which Lortus identified as wall-decorations (see p. 244) it would seem that these cones are in reality rosettes, with long conical shanks for insertion into walls.

¹ The "King of the Battle" is an ancient Babylonian romance of war and travel, describing the campaign of Sargon against the Hittites in Anatolia (see WEIDNER, *Der Zug Sargons von Accad nach Kleinasiens*, Hinrichs, Leipzig 1922).

² Two vase-stands(?) or portable altars in the Louvre. In them the mother-of-pearl of the 'Obeid pillars is replaced by white stone. (J. E. GAUTIER and G. LAMPRE, in *Mém. Délég. Perse*, VIII (1908), p. 79, Fig. 106.)

Finally, there remain to be mentioned the fragment of the limestone figure of Kur-lil, keeper of the granary of Erech, and the almost complete trachyte figure of a man who is very probably Kur-lil. Both were found together on the same level as the lions, and close to them. The first is merely a torso, on the breast of which, however, is cut a very archaic inscription (fig. 3), recording the gift of the statue by Kur-lil in the temple of Damkina¹, which was presumably at el-'Obeid: the goddess Damkina being the spouse of Enki or Ea, the god of Eridu (Shahrein), near by. The second is complete except for part of one leg. It is a squatting figure of a man of the usual Sumerian type, with perfectly preserved head and face, about 1 ft. 3½ inches high. The head, shaven but for the eyebrows, and with prominent eyes and nose, is of the type characteristic of Sumerian representations of the human portrait. The rest of the body is treated summarily, especially as regards the hands and feet, and the legs have

suffered from disintegration caused by damp, one foot having disappeared (Pl. XXXI, 1, 2).

On the shoulder is a single sign, the rest of the inscription having been worn away. Both figures were found lying overturned. These figures date the find. They are admittedly of the early Sumerian period, very likely the period of Ur-nina (c. 3600 B.C.) or somewhat earlier, to judge from the characters of the inscription of Kur-lil. So that very probably they are contemporaneous with the building or not much later than it.



Fig. 3. Archaic Inscription of Kur-lil.

Besides these objects, a certain quantity of the plain drab pottery that seems characteristic of the Sumerian period was found, in a smashed condition. Especially noticeable are some fragments that can hardly have belonged to anything else than drainpipes.

The circumstances and description of this find are strongly reminiscent of that of the deposit of Hierakonpolis, and there are one or two actual comparisons that can be made between the objects found in both cases.

With regard to the metal, there is in both cases the technique of hammered plates secured by nails to a wooden core, which we find in the case of the Pepi statues in Egypt. It would be interesting however to have the opinion of those best qualified to judge as to whether the face of Pepi's son at any rate is or is not cast.

The workmanship of the Egyptian figures is much finer. The bodies of the bulls and stags from el-'Obeid are extremely crude and clumsy, and give the impression of greater antiquity. Did we possess the copper statue *K'ay-H'asehemui*, "High is Kh'asekhemui," which, as we know from the Palermo stone, was made in the reign of Kh'asekhemui (c. 3200 B.C.), and gave the official name to the year in which it was

¹ This inscription has been studied independently by Prof. LANGDOX and Mr. GADD.



1. Lion's head: partly restored.



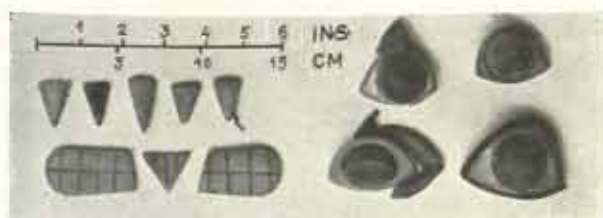
2. Smaller lion's head.



3. Lion's head: complete. Front view.



4. Lion's head: complete. Back view.



5. Teeth and Eyes of lion-heads.



6. Finding the lion-heads.

made¹, we should have been able to draw a truer parallel between Egyptian and Sumerian copper works of art in the fourth millennium B. C., and it would have been interesting to see whether the Egyptian figure presented the crudities which we see in the early Sumerian metal-work from el-'Obeid, but are not visible in the fine technique of the Pepi statues. A comparison between the Sumerian figures and the Pepi statues is vitiated to some extent if we regard the latter as made of bronze, instead of copper. For one thing, the casting of the heads would be much easier in bronze, and so the heads of the Egyptian figures, or at any rate that of the boy (if it is cast) would be far less of an achievement than were the lion-heads from el-'Obeid. The Italian chemist Mosso is responsible for the analysis that affirms that the Egyptian figures are of bronze². But it may well be doubted whether they are so. Not that any reflexion is cast upon Dr. Mosso's analysis: the only question one would like to have resolved is whether the piece of copper which the late M. BARSANTI gave to the Italian savant to analyse was actually part of one of the figures, or whether it was merely a chance fragment which was *believed* to have belonged to one of them, without real proof.

Bronze figures of this size in the time of the VIth Dynasty are highly remarkable, as one does not expect such a use of the alloyed metal in a country which hardly adopted bronze even for weapons until well on in the next age, the time of the XIIIth Dynasty, and can hardly be said to have emerged from the "Copper Age" till near the end of the Middle Kingdom. However this may be, we might in any case have gained a little light on the question of the priority of Egypt or Babylonia in this matter of metal-working, which is still unsettled. Those who believe that Egypt was the father and mother of all arts, and was specifically the discoverer of copper and inventor of metal-working, will regard the Babylonian knowledge of metallurgy as of Egyptian origin: while the Panbabylonists will presumably still take the opposite view, in the continued absence of direct evidence to the contrary.

The possibility of a third alternative, common derivation from a single source, possibly in Syria, should not be lost sight of. After all, copper is found in Cyprus and Cilicia as well as in Sinai. And other lines of argument, based on such questions as the Syrian origin of the god Osiris³, his connexion with the vine and with corn, both probably indigenous to Syria⁴, and the apparatus of primitive agricultural civilization generally, on the Syrian (?) origin of the "Armenoid" race that so profoundly modified the ethnography of the Nile valley in the late predynastic and early dynastic age and evidently set a new stamp on Egyptian culture and art, and so forth, incline us to take Syria seriously as the possible ultimate origin for many features common to the Egyptian and Babylonian civilizations, including the art of metal-working. There are some things, of course, that seem to point to direct connexion, such as the identity in form of the early Babylonian and Egyptian macehead and cylinder-seal, while other things such as the brick are so dissimilar in form that they seem to be independent inventions in the two countries, due to their similar alluvial clay soil. The resemblance of the early Egyptian wall, with its recessed panels, to the exactly similar walls of early Babylonia,

¹ SETHI, "Hitherto unnoticed evidence regarding Copper Works of Art of the oldest period of Egyptian History" in *Journal*, I, 233 ff.

² Mosso, *Dawn of Mediterranean Civilization*, pp. 55-57.

³ See S. SMITH, *The Relation of Marduk, Ashur, and Osiris* in *Journal*, VIII, 1922, p. 41 ff.

⁴ See my *Ancient History of the Near East*, p. 89.

cannot however be a coincidence, and here we must see proof of connexion, either direct or by sea, or through Syria. The natural line of route between Mesopotamia and Egypt lay through Syria: it was by way of Syria that Babylonian conquerors and traders reached Palestine, though it would seem neither improbable nor impossible that Sumerian ships at an early period should have passed out of the Persian Gulf along the shore of Hadramaut and through the Straits of Bab el-Mandeb to the Egyptian Red Sea coasts and Sinai, and that the name of Māgan ("the place to which ships went") may have been extended from the neighbourhood of 'Omān round to the desert coast of Egypt and to Sinai itself¹. How shall we explain the enigmatic carvings of the knife-blade of al-'Arak², with that extraordinary Babylonish god-figure whose feet end in snakes, or its mingling of predynastic Egyptian motives with a technique that resembles the work of Narām-Sin's time? Does this rather point to an antiquity of Babylonian art much greater than that of Egypt? For the figure of al-'Arak, presumably contemporary with predynastic Egypt, is perhaps that of a Semitic rather than a Sumerian Babylonian. As a god, though somewhat resembling Gilgamesh, he is unknown to Babylonian iconography, and if he is Elamite, what is he doing in this galley, unless Elamites navigated the Red Sea in predynastic times? He looks like some god of the desert between Nile and Red Sea, conceived by his worshippers under a form strongly influenced by Mesopotamian-Elamite ideas brought to the coast (of Māgan?) by sea, and represented by a predynastic Egyptian artist. This all seems fantastic, but the thing itself is fantastic.

But for this remarkable object, one would say that there was no evidence yet as to which civilization is the older, or which first communicated the knowledge of metal to the other. Babylonia certainly has the lesser claim, since she always had to import her ore: she must have received this knowledge from outside, if not from Egypt, then most probably from Syria.

An interesting point with regard to these similarities in early Egypt and Babylonia is that in Egypt it is precisely those archaic things that are most Babylonian in appearance that did not persist, but were abandoned either during the Old Kingdom, or at least by the end of the Middle Kingdom. This is the case with the panelled brick wall and with the cylinder-seal and with the macehead. Another instance is the conventional treatment of the lion in art, which has already been mentioned above. The Sumerian lions from el-'Obeid are represented in the usual Sumerian style, with grinning jaws and staring eyes, full of ferocity, which persisted as a tradition down to Persian days, and has been transferred to the tiger in India. The typical Egyptian lion we know, dignified and reposeful, with tight-closed mouth and calm gaze: a representation the exact opposite of the Sumerian. But in archaic times, contemporary with Sumerian days in Babylonia, apparently the Egyptian also admired the ferocious grinning lion and often represented him in this guise, and in a style so closely resembling the Sumerian as to argue a connexion of ideas.

These cultural relations seem to have become less intense in later days, and the Egyptian developed on his own lines. The Babylonian-looking element in archaic Egypt-

¹ Cf. LANGDON, in *Journal*, VII (1921), p. 143 ff. Prof. NEWBERRY is understood to be specially studying this question of the early relations of Egypt with Syria.

² See above, p. 241.



1. Implements of Flint, Obsidian, Crystal, &c.



2. Tessellated pillar.



3. Pre Sargonic plano-convex Brick and rectangular bricks of Dungi.



4. The mound and camp.

TELL EL-'OBEID.

ian art and culture then give an exotic impression, as if they were due to some temporary impress which afterwards faded away. If so, as in Babylonia the similar phenomena were natural and persisted, it would look as if they came from Babylonia to Egypt rather than *vice versa*, or at any rate from a common source which impressed Babylonia more strongly than Egypt. But these things are scarcely yet susceptible of proof.

Maceheads of limestone, plain or veined, were found both at Shahrein and at el-'Obeid, of the two types, pear-shaped and flattened spherical, which are both also found in Egypt, at Hissarlik in Cyprus, and in Italy¹. The illustration (Pl. XXX, 1) shews early Babylonian maceheads from el-'Obeid and early Egyptian for comparison. The identity of type, well known as it is, is striking. Both at Shahrein and at el-'Obeid, however, there is also commonly found a stone implement that is rare in Egypt, the small celt, of a late-neolithic type common in Europe (Pl. XXXIV, 1). It is in Babylonia generally made of green or yellow jasper, black basalt, or a hard green stone (serpentine or nephrite?), measures only an inch or so in length, and was evidently used as a chisel or adze. These celts certainly seem to belong to the chalcolithic age, to which also the arrowheads, flakes, saw-blades, &c., of flint, chert, quartz-crystal, and obsidian, found with them (Pl. XXXIV, 1), are to be assigned. The saw-blades are peculiarly abundant at el-'Obeid, whereas at Shahrein they are rare. They are found on other Mesopotamian sites, as Ur², Warka³, Fara and Babylon⁴, but nowhere in such profusion or perfection as at el-'Obeid. None were found set in bitumen, like those described by KOLDEWEY from Fara⁵. The maceheads come well down into historical times, as we know from the fine specimen in red breccia in the British Museum, which bears the name of Sargon of Agade (no. 91146), and is almost precisely similar to an Egyptian predynastic specimen, also in red breccia, in the same museum (no. 32089)⁶.

The celts and even the flint and obsidian flakes and arrowheads also may have survived in use later than we think, but in all probability most of them are prehistoric, as the painted pottery must be. The pottery at el-'Obeid which seems contemporary with the copper lions, &c., is, as has been said, of a rough plain drab ware, unpainted, except that rarely one notices a touch of black paint which seems the last gasp of the older painted ware. This, the prehistoric ware (Pl. XXX, 2, 3; Figs. 5, 6), is identical, as has already been said, with that found by PÉZARD at Bushire (and of course, that found by THOMPSON and myself at Shahrein⁷), and practically the same as the coarser

¹ PERR, *Stone and Bronze Ages in Italy*, pp. 250, 251. Prof. PERR omits to note that the pear-shaped macehead is as characteristic of Babylonia as it is of Egypt, when he writes "outside Italy this pear-shaped form seems to be peculiar to Hissarlik, Cyprus, and Egypt."

² Both THOMPSON and I found several (cf. THOMPSON, *The British Museum Excavations at Abu Shahrein in Archaeologia* LXX (1920), pl. LX, p. 141).

³ LORTUS, *Travels and Researches*, p. 213. LORTUS may be excused, seeing when he wrote, for his idea that these flint saw-blades were flints, for striking a light. If, as he says, he found one with a "steel" in a tomb (evidently of late date), the later Babylonians must have used these ancient saws for this purpose.

⁴ KOLDEWEY, *Excavations at Babylon* (Engl. Trans.), p. 261, fig. 182. He strangely describes these flints as "palaeolithic."

⁵ KOLDEWEY, *loc. cit.*

⁶ BUDGE, *Hist. Ey.*, I, p. 63, illustrates the two side by side.

⁷ A few scraps were also found at Ur, also, as has been said above, with a few flints and obsidian flakes, fragments of pottery sickles &c., which shew that the same prehistoric stratum existed at Ur.

styles of Susa. Its decoration is a local variety of the widespread geometric style that in prehistoric times seems to have spread over the whole of hither Asia, and is related perhaps on the one hand to the neolithic geometric style of Thessaly¹ and on the other to the early geometric style of Honan in China². The Susian ware has been compared by the discoverer, M. DE MORGAN, to the painted vases of predynastic Egypt, but to me personally this comparison has always been a stumbling-block. Between the wares of course there is nothing in common, but ware is a matter of local peculiarity, and

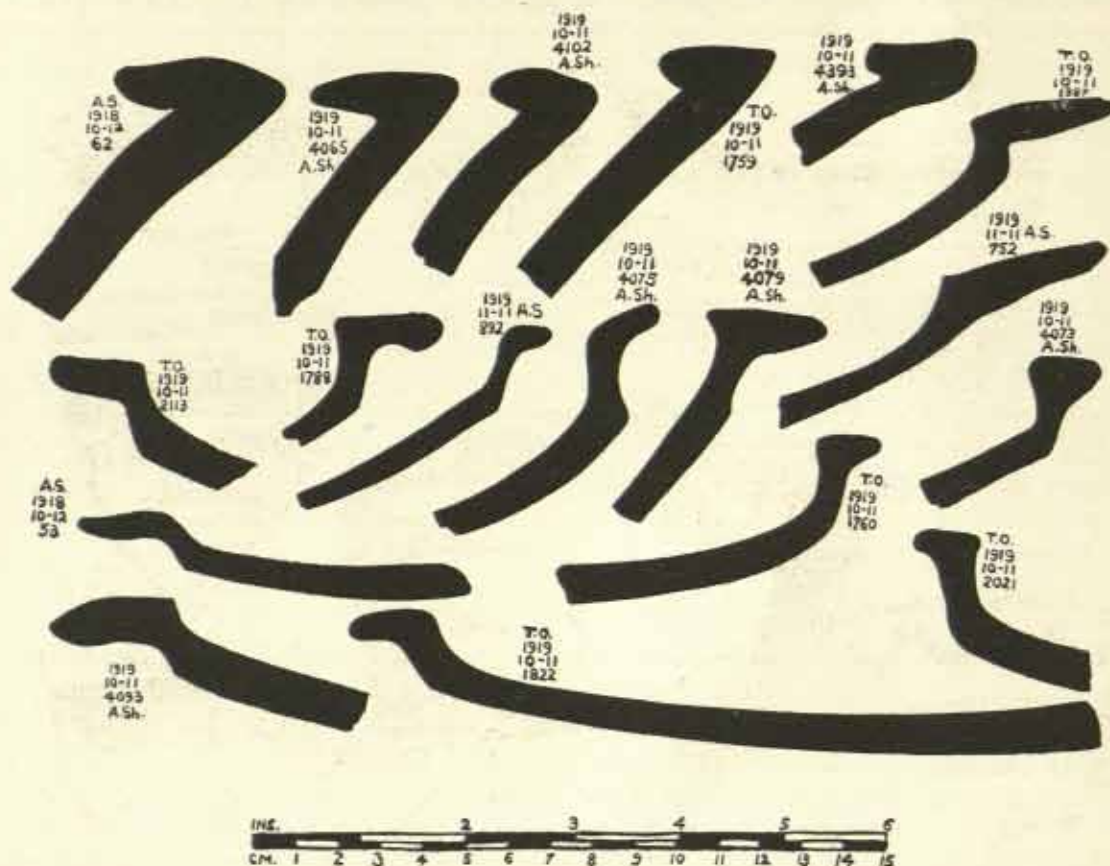


Fig. 4. Profiles of carinated pottery bowls, el-'Obeid and Shahrein.

dissimilarity of ware cannot be pressed if designs are identical or even similar. But it is difficult to see any but an occasional slight similarity between Susian and Egyptian predynastic pottery decoration. The white geometrical designs on the polished red ware of the oldest predynastic period are somewhat like geometrical decoration of the Babylonian and Elamite ware in pattern, though not in colour. The similarity between the

Later habitation and building however have so disturbed the earlier strata at Ur that we have not yet found prehistoric remains *in situ*. They are merely found here and there on the surface or are turned up haphazard in digging.

¹ HALL, in *Proc. Soc. Bibl. Arch.* XXXI (1909), p. 311 ff.

² This has been pointed out to me by my colleague Mr. R. L. HOBSON.

stylized and schematic human beings and animals on the two wares seems to me generally to be remote and only coincidental, so that no conclusions as to connexion can be drawn from it. The Egyptian pottery seems to me therefore to belong to a ceramic art unconnected with the geometric ceramic decoration of early Western Asia.

But curiously enough the prehistoric pottery of Shahrain and el-'Obeid has brought to light an Egyptian-Babylonian similarity which is new to us. Many of the pottery bowls of which so many fragments have been found were carinated (Figs. 4, 5, 6), having exactly the same profile as the characteristic Egyptian diorite bowls of the IIIrd—IVth

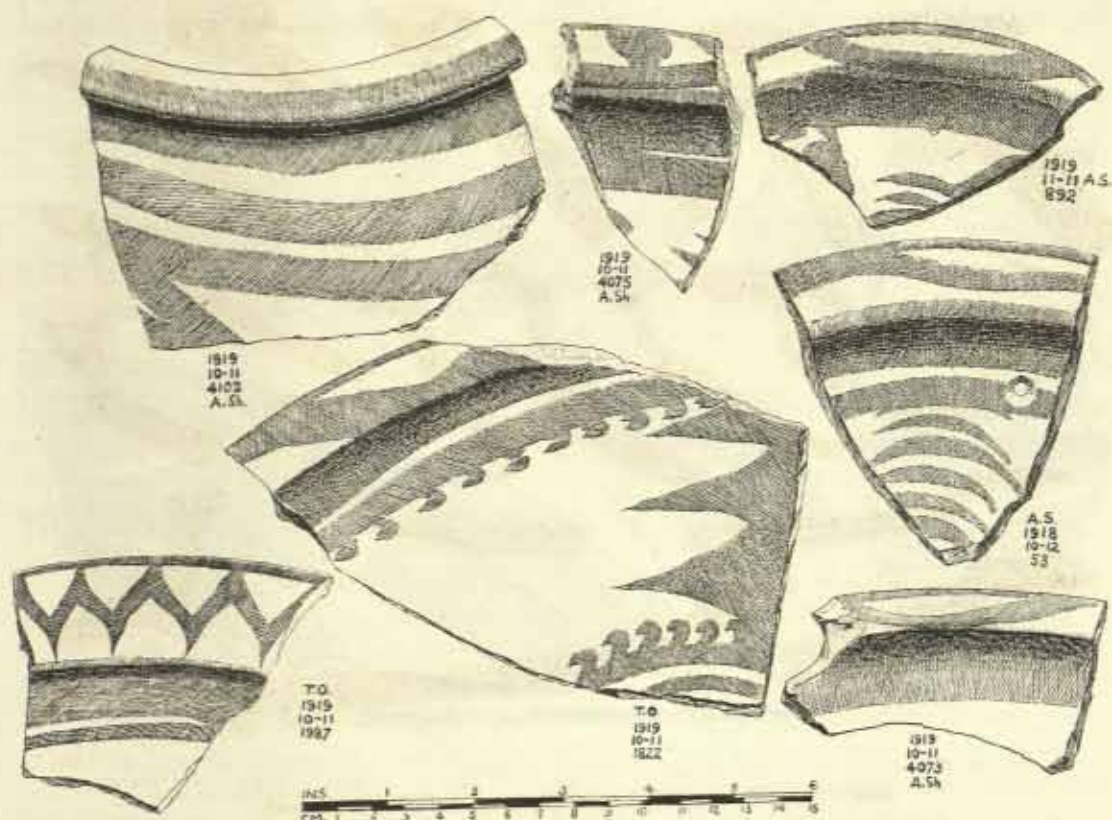


Fig. 5. Fragments of carinated pottery bowls; el-'Obeid and Shahrain. Decoration black.

Dynasties (Pl. XXX, 4).¹ This is an important comparison in more than one respect. Such a type is not likely to have been invented independently *for pottery* in Babylonia, and to my mind certainly points to Egyptian influence at any rate not earlier than the time of the IIrd Dynasty (c. 3200 B. C.). This would bring down the use of this pottery later than has been supposed, and practically into the historical period. But, as has been said, with the copper lions and other objects which are roughly of this date (the period of Ur-Nina) only the common drab ware was found, which is usually supposed to be later in date than the painted ware, the only trace of the latter being an occasional recurrence of apparently

¹ EVANS, *Palace of Minos*, I, fig. 54. The type was imitated by the "early Minoan" Cretans in liparite (Pl. XXX, 4 above, from *Journal I* (1914), Pl. XVII, 4).

degenerate painting. Was the painted ware, nevertheless, used so late as well as the drab ware, which afterwards wholly supplanted it? Another point is (and this is in favour of late survival, incidentally) that, as Sir ARTHUR EVANS has recently remarked to me, the carination of the Egyptian diorite bowls is an adaptation to stone of a metal motive: they should be imitations of copper bowls. The carinated rim is not natural in stone. The predynastic Egyptian stone bowls all have a heavy flat rim when they have one at all¹: the carination is a later development, and should be due to the influence of metal-working, to which alone it is natural, as being easily beaten out. If so, the similar form in the early Babylonian painted pottery is also derived from a metal original: the el-'Obeid bowls were imitated from copper bowls, and Egyptian copper bowls at

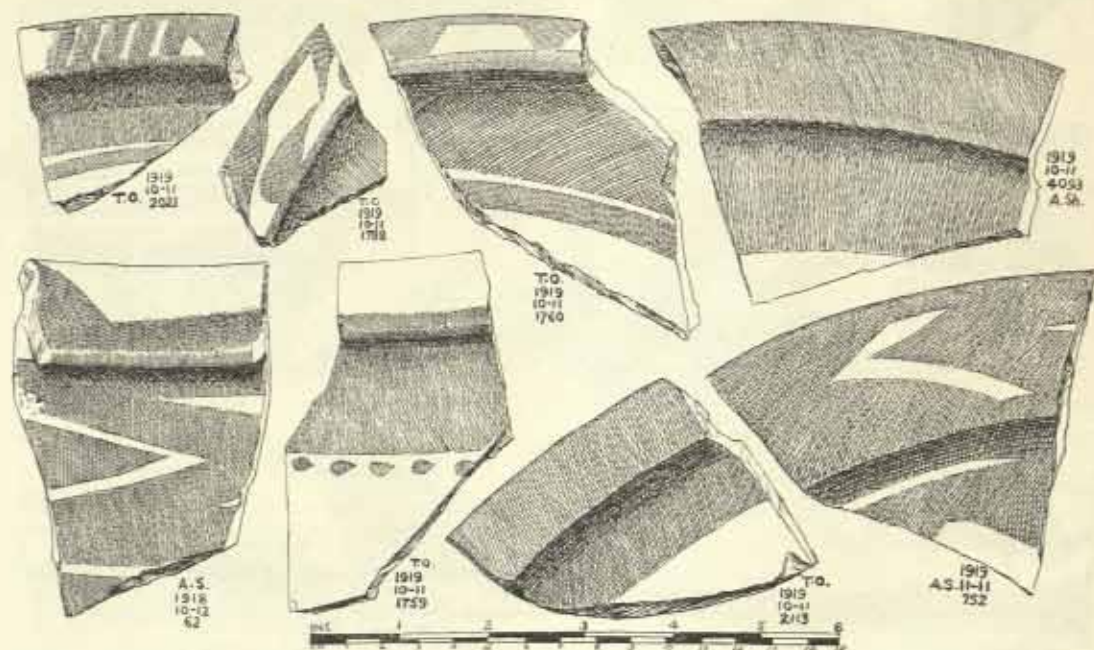


Fig. 6. Fragments of carinated pottery bowls; el-'Obeid and Shahrein. Decoration black.

that, either directly, or through the medium of the diorite bowls of the IIIrd Dynasty. And this is not impossible, for there seems small doubt that Egyptian aragonite was prized by the early Babylonians, and was often imported, and the carinated type occurs early in aragonite also. The people who went to Māgan for stone could easily import aragonite in bulk from the Egyptian eastern desert-coast and individual vases of aragonite also. Fine stone was much prized in stoneless Babylon, and it was to Māgan that the early kings and patesis sent for it. We have relics of this import in the great blocks of different kinds of granite and basalt that now lie derelict on the top of the mounds of Shahrein. They were brought there for the making of statues and vases.

The basalt may have come from up-country, from the volcanic land of Diarbekr, as easily as from Sinai, but the granites certainly look as if they were products of

¹ EVANS, *Palace of Minoan*, I, figs. 28-32.

Māgan, from which the inscriptions say fine stone was procured¹. Whether, however, the carinated pottery bowls were imitated from copper bowls directly, or indirectly through those of diorite or aragonite, their resemblance to the latter Egyptian objects is so striking as strongly to indicate an artistic connexion here, and causes doubts as to the wholly early and pre-Sumerian date of the painted pottery as a whole. THOMPSON believes it to be entirely pre-Sumerian and pre-historic, regarding it as the pottery of a people of Elamite origin who inhabited Babylon before the Sumerians. But it seems to me that in this matter we should for the present at any rate suspend judgement.

The el-'Obeid ware is specially remarkable for the diversity of its geometric patterns, and their execution is freer and more minute than that observable at Shahrēin. At both places interesting examples of a naturalistic tendency are seen in the occurrence of free designs derived from leaves, grass, &c., and Shahrēin has given us a sketch of a scorpion and a schematized jumping frog², which are perhaps the earliest Babylonian representations of animals. In designs generally, though not in ware, our newly discovered early Babylonian pottery closely resembles the early ware discovered by HERZFELD at Samarrā, as well as that of Susa.

The ware is usually a greenish-drab clay, highly fired, and often almost vitrified, and extremely hard; soft drab wares rarely occur, and are possibly not of local fabric. The true potter's wheel was probably not yet in use, but, whereas some pots seem to have been entirely hand-fashioned, others seem to betray the knowledge of the incompletely developed wheel, the "slow wheel." It is possible that the development of the potter's wheel is to be ascribed to Babylonia and Elam, and that it was from Babylonia that the knowledge of this invention passed to Egypt about the time of the IVth Dynasty, and perhaps thence to Crete in the Middle Minoan period³, contemporary with the XIIth Dynasty; though of course it may have been communicated directly overland through Asia Minor, or more probably through Syria and the medium of the seagoers of the Cilician coast (Alashiya?). The comparatively late date of the introduction of this invention into the Aegean area is perhaps in favour of the claim of Egypt to have been the transmitting medium.

From the above it will be seen that the excavation of el-'Obeid has various points of interest for the Egyptian archaeologist, and should it turn out that the Pepi statues from Hierakonpolis are in reality not of bronze, but of copper, considerable point will be added to the comparisons which I have made between their technique and that of the copper lions and bulls from el-'Obeid, which cannot be very far removed in time from them or from their somewhat earlier predecessors, such as the statue of Kh'asekhemui, that have perished.

¹ When working at Shahrēin in 1919 I was unable to find small fragments of these blocks to bring back for microscopic analysis, in order to determine, if possible, in that way their probable place of origin. I have, however, requested Mr. WOOLLEY, who has succeeded me in charge of the work at Ur, to obtain some fragments, if possible, for this purpose.

² THOMPSON, *loc. cit.*, fig. 9.

³ EVANS, *Palace of Minos*, I, p. 259.

L. MITTEIS (1859—1921)

BY SIR PAUL VINOGRADOFF

The death of MITTEIS has removed from the world of learning one of its most prominent figures. No one has done more to extend the study of Roman jurisprudence by research into its relations with Hellenistic and Oriental culture. The wealth of contents and the admirable dialectics of the *Corpus juris* had exercised such a fascination over generations of students who were spell-bound by the dogmatic cohesion of the system and unable to estimate at their right value the heterogeneous currents of legal thoughts within the Roman Empire. When BRUNS had to write a commentary to the Syrian version of a Roman Code he found no better terms to describe characteristic divergences from the classical rules than "misunderstanding," "misstatement." Two pioneers, both natives of German-Austria—H. BRUNNER and L. MITTEIS—broke decisively with this tradition: the first illustrated the process of vulgarisation of Roman law in the provinces from the development of charters, the second took up the study of papyri and inscriptions in order to show to what extent nations of the Hellenized East followed traditional paths of their own under cover of the Imperial unity. The volume on *Reichsrecht und Volksrecht* published in 1891 marks an epoch in the treatment of legal sources of the Imperial epoch. MITTEIS did not create papyrology, of course, but he was the first to utilise its results for juridical purposes in a scientific way, very different from the haphazard speculations of earlier Egyptologists like REVILLOUT. It is interesting to compare these initial investigations with the recent productions in this field, such as ROSTOVTSSEFF's monograph on the *Colonate* or COLLINET's studies on the Oriental aspects of Justinian's codification¹. Every now and then the old dogmatic proposition reappears in a new guise. But the main points of MITTEIS' argument have been confirmed and supplemented in every way by subsequent investigations. MITTEIS took a share himself in publishing Greek papyri from Egypt², but his principal contribution to this study was contained in his juridical commentaries on and deductions from papyrological materials. He joined WILCKEN in the publication of a selection of texts and in summarising the results of the era of discoveries achieved by GRENFELL, HUNT, JOUGUET, SCHUBART, PARTSCH and so many others³. The juridical outlines of his volume of the *Grundzüge* provides the most convenient framework for students who wish to approach the study of Graeco-Roman Egypt from the jurisprudential point of view. It is drawn up with the greatest caution and restraint and one cannot help wishing sometimes that the conclusions were less affected by a non-committal attitude. However it has to be remembered that the work

¹ See e. g. his article on the fundamental principles of Justinian's codification in *Revue d'histoire du droit*, Leiden 1922.

² *Griechische Urkunden der Papyrussammlung zu Leipzig*, I. Band, Leipzig 1906. See too the commentaries contributed by him to WESSELY's *Corpus Papyrorum Raineri* (Wien 1895).

³ *Grundzüge der Papyrologie*, II. Band, Juristischer Teil, Leipzig 1912.

is intended to serve as an introduction to research and not as a conclusive statement of doctrines¹. Of another work of a comprehensive nature, the *Römisches Privatrecht*², only the first volume has seen the light. It occupies a peculiar and significant place among the famous works on the Civil law of Rome. It does not attempt to give a complete description of Roman juridical institutions similar to the well known text books of GIRARD, of CUQ or of BUCKLAND. MITTEIS mapped out a bolder plan starting from jurisprudential distinctions: law as an aggregate of objective rules is considered in its subdivisions of sacral custom (*fas*), civil law, rules declared by magistrates (*jus honorarium*), law of commercial intercourse (*jus gentium*). Then come chapters on rights as an outcome of the subjective aspects of law; finally a characterization of the law of persons—physical and juridical. In this way a very important portion of the subject, including succession, the general theory of transaction (*negotia*) and torts, as well as the teaching on associations and corporations is covered by the extant first volume, while the law of things and of procedure would have evidently formed the contents of a second and, perhaps, of a third volume. This plan gave the author an opportunity to express his opinions on general problems with critical independence and great width of view, although it is to be regretted that many difficult subjects, *e. g.* the origin of testament, remain in a kind of semi obscurity on account of the fragmentary manner in which they are discussed and interwoven with other topics. As regards the relations between Roman and Greek law, one cannot help thinking that MITTEIS' consummate knowledge of Hellenistic materials ought to have enabled him to trace the outlines of the comparison with a firmer hand. The very instructive chapters on conventions might have been supplemented probably by similar statements on other topics.

No appreciation of MITTEIS work can neglect the numerous papers contributed by him to learned periodicals, especially to the *Zeitschrift der Savignystiftung für Rechtsgeschichte*, of which he was for many years one of the principal editors for the Roman Law section (*Romanistische Abteilung*). It will be sufficient to enumerate some of the more important of these contributions in order to give an idea of the vast learning and untiring activity of the great scholar. I will only cite *Trapezitika* (1898); the manumission *vindicta* by a *filius familias* (1900); *nexum* (1901); *Romanistic papyri* (1902); the Syrian-Roman code and Hammurabi (1904); a trial for debt in Egypt in 84/86 A. D. (1906); the right to appoint guardians in the provinces (1908); Stipulation and bequest (1910); the so-called *Lex Julia municipalis* (1911); the deduction *quae moribus fit* illustrated by comparison with a Ptolemaic case (1902); the origin of hereditary leases (transactions of the Saxon Academy, Hist.-Phil. Klasse, Vol. XX).

MITTEIS' personality as a writer was conspicuous by his gifts of observation and discovery rather than by dialectical subtlety. He resembled a traveller, keen on visiting new countries and drawing on his wealth of experience for fresh comparisons and deductions. He was not one of those who accumulate details for their own sake: his studies of Egypt and the Hellenistic East were combined with broad generalisations from which his followers took their guidance. He was as averse to paradoxical constructions as to pedantic common places. He preferred saying frankly that there were things he did not understand and he could do so without prejudice to his authority, because he had mastered so many of the most difficult problems of historical jurisprudence.

¹ Cf. the review in *Klio*, XI (1913), 495—502.

² Leipzig 1908.

BIBLIOGRAPHY 1921-1922¹: ANCIENT EGYPT

By F. L. GRIFFITH, M. A.

The attention of Egyptologists and of a wider public has this year been specially directed to the beginnings of the decipherment of hieroglyphic writing through the centenary celebration of the first of CHAMPOLLION's great discoveries. At a public sitting of the Berlin Academy on January 27th 1922 (held in honour of the birthday of King William II) at which the annual reports of the various activities and undertakings of the Academy were submitted, the *pièce de résistance* was a discourse on the decipherment of the hieroglyphs delivered by Professor ADOLF ERMAN (*Die Entzifferung der Hieroglyphen*, printed in the *Sitzungsberichte* 1922, XXVII-XLIII). In this very able and judicious exposition ERMAN sketches the entire history of the decipherment down to its acceptance by LEPSIUS and the learned world in 1837 as an event which by opening to us the sealed books of antiquity has completely altered our outlook on the history of the early world, on the sources of civilisation, and on the growth of religious ideas. A new detail here brought out is that the first well-directed step towards decipherment dates back to 1762 when CARSTEN NIEBUHR cut himself loose from the current misconceptions derived from Greek writers (who attributed elaborate symbolism to each hieroglyphic sign); studying the characters as they occurred in varying combinations on the monuments which he met with during his sojourn in Cairo, NIEBUHR already perceived the truth that they must represent phonetic as well as symbolic elements. In 1802 after the discovery of the Rosetta stone with its triple version of the Ptolemaic decree in hieroglyphic, demotic and Greek, the Swede ÅKERBLAD was able to identify proper names in the demotic written in alphabetic characters. In 1819 THOMAS YOUNG went far beyond ÅKERBLAD and seemed to be on the way to full decipherment of both demotic and hieroglyphic, but in the midst of many other occupations and distractions he relaxed his efforts and failed to gather the fruit of his discoveries. In 1822 CHAMPOLLION seized the right clue and followed it up with an unbroken series of decipherments in the remaining ten years of his life, during which he was able to devote the whole of his time to the study of inscriptions and papyri in France, Italy and Egypt itself. His collapse and early death in 1832, soon after his appointment to a professorial chair in Paris, precluded CHAMPOLLION from systematising the results and forming a school of Egyptology; his marvellous understanding of Egyptian is compared by ERMAN to that of a man who has acquired a modern language from conversation and writings without conscious and scientific analysis. The young science, deprived of its originator and chief cultivator, seemed likely to perish in the atmosphere of suspicion and detraction which was created, until RICHARD LEPSIUS authoritatively explained and, in part, corrected CHAMPOLLION's method and showed how truly the decipherment had been accomplished.

On February 2nd the *Literary Supplement* of the *Times* devoted a long leading article to the *Centenary of Egyptology*, sketching the careers of J. F. CHAMPOLLION le Jeune and THOMAS YOUNG and their respective achievements in decipherment.

On April 18th came the turn of America, when the American Oriental Society held its annual meeting at the University of Chicago and Professor BREASTED gave a lantern lecture to illustrate the decipherment of Egyptian.

On May 3rd at a public sitting of the Royal Academy of Belgium, Professor CAPART discoursed eloquently on *Le Centenaire du Décryptement des Hiéroglyphes par Champollion*. His discourse is printed in *Bulletins de l'Académie royale de Belgique, Classe des Lettres*, No. 5, pp. 135-152 and separately; the profits of its sale go to the purchase of a fine head of the Old Kingdom for the Brussels Museum.

¹ The volume for 1921 of the *Annales du Service des Antiquités de l'Égypte*, containing many important articles, reached me too late for inclusion in this Report.

In Paris the centenary of CHAMPOLLION was joined to that of the Société Asiatique, and from July 10—13 a brilliant series of receptions and gatherings was arranged at the Musée Guimet, the Sorbonne, the Louvre and the Hôtel de Ville, as well as at the beautiful residences of M. SÉNART and the Prince BONAPARTE. At all these a large number of representatives of allied and neutral countries were present. In the Egyptian Galleries of the Louvre a commemorative tablet was affixed at the head of the great staircase, and M. BÉNÉDITE described the course of the great discovery. In connexion with this M. LAGIER of Marseilles contributed an Essay *Le Centenaire du Décryptement des Hiéroglyphes par Champollion le Jeune* to the *Paris Études* CLXXII, 129—153, in which he describes the steps by which the problem was solved. It is sad that the chair of Egyptology created for CHAMPOLLION at the Collège de France is in abeyance since the death of Sir GASTON MASPERO, owing to shortage of funds; but on the other hand, never has the science in France been more actively pursued or efficiently taught than now.

Finally, a celebration on October 7—8 was arranged at Grenoble, the capital of CHAMPOLLION's beloved Dauphiné, a city in which he suffered much as schoolboy, professor and teacher before fortune smiled upon him, and to which he retired for a brief period of recuperation from his too strenuous labours before the fatal return to Paris. The family château of Vif which belonged to his brother FIGÉAC is a museum of CHAMPOLLION relics, and was the object of a most interesting excursion.

The report by EDEUARD MEYER on the work of the Orientalische Kommission of the Berlin Academy states that the editing of the Kahun papyri of the Middle Kingdom in the collection at Berlin, had been entrusted to SCHARFF, but that his work had been interrupted by his appointment to the place in the Museum of the lamented GROSS MÖLLER (*Sitzungsberichte* 1922, p. LXV). ROEDER had nearly finished the last part of the inscriptions in the Berlin Museum. A monograph on the history of Egyptian writing, begun by MÖLLER under a special fund, will be continued, if possible (*ib.* LXVIII). We may also note here that SCHROEDER's publication of the Assyrian texts from Assur is nearing completion and, as to the tablets from the Hittite capital of Boghaz-Keui, SCHROEDER and WALTHER are continuing the publication of the Babylonian texts and WALTHER is preparing that of the Kanesian divination texts, while FORNER is carrying out a publication of the historical texts in transcription (*ib.* LXV).

The *Fifty-second Annual Report* (1921) of the Metropolitan Museum of Art at New York has an interesting account of the progress of the Egyptian collection and holds out hopes of great and continuous activity in publication now that the expedition has accumulated material and the installation of the collections has been completed (*cf.* above p. 105).

At Chicago Professor BREASTED's efforts to further Egyptology are progressing. He has obtained the money and now he has produced a detailed programme of great interest and promise. The purpose of the Oriental Institute, with an endowment given by Mr. J. D. ROCKEFELLER is defined as the "expansion and maintenance of the Haskell Oriental Museum of the University of Chicago, that it may serve as a laboratory for the investigation of the career of early man in the Near East, and thus furnish to the teaching staff of the Department of Oriental Languages the materials and the opportunity for researches which will contribute to the recovery of the ancient civilisations whose languages are taught by the Department". Professor BREASTED tells of the first exploring tour of 1919—1920 in Egypt, Mesopotamia and Syria to examine the ground, to confer with Government authorities, to inspect new discoveries and to make purchases; and then he describes his museum and the recent acquisitions. The leading features in his programme of work are:—

1. An Assyrian-Babylonian dictionary on an exhaustive scale following in general the scheme of preparation for the Egyptian dictionary at Berlin but with various elaborations and improvements devised by Professor LUCKENBILL; amongst them is a specially adapted type-writer for the transliterated texts, for it is not considered necessary to copy the cuneiform characters on the cards. This dictionary is being prepared entirely by American professors of Oriental languages and their students and the scheme at present does not include Sumerian or any of the non-Semitic languages of cuneiform. It is hoped that the co-operation of European scholars will be eventually secured, and it is suggested that the dictionary may be nearly complete in eight or ten years.

2. On the Egyptian side, an exhaustive edition of the funerary texts on Egyptian coffins of the Middle Kingdom, fore-runners of the papyrus Books of the Dead. The combination of scholars formed for this purpose consists of Professor BREASTED himself, Dr. ALAN GARDINER and M. LACAU. These three will meet in Egypt next December to begin the work with the great collections in the Cairo Museum. The texts will be copied in *vertical* columns of writing (to correspond to the usual arrangement on

the originals) upon elaborately designed cards, which will be manifolded; and in addition the texts will all be photographed.

3. Animal tales (Brer Rabbit &c.) told by the negroes of America were brought from West Africa whither they had long ago spread from the East. The Institute is providing Professor SPRENGLING with photographs of all accessible MSS. of the great Arabic collection of Indian fables known as *Kalila and Dimna*, with a view to a complete edition thereof, and it is intended to track their history as far as possible back to very early times in Egypt and elsewhere.

There is also begun a comprehensive system of archives for the history and archaeology of the Nearer East, and the staff of the Institute is undertaking or co-operating in the publication of documents in other collections which for financial or other reasons cannot be locally carried out. *The Oriental Institute of the University of Chicago, a Beginning and a Program* in *The American Journal of Semitic Languages* XXXVIII, 233-328, with many illustrations.

MORER gives an interesting report of his visit to America on the occasion of the Orientalist Congress at Boston, when he inspected the magnificent collections made by REISSER for Boston and those of New York brought back by LETHBRIDGE, and was introduced to BREASTED's scheme (*Journal Asiatique* XI. Ser., t. XVIII, 330-333).

SETHRÉ has written an excellent sketch of Egyptology as a branch of knowledge and research, indicating its purpose and scope and its important contributions to other branches. He not unjustly claims for Germany, with especial reference to the work of LEPSIUS, BRUGSCH and ERMAN, the chief share in its development since CHAMPOLLION, but not without awarding a full measure of recognition to scholars in all countries, among whom MASPERO "a savant of the highest order" and FLINDERS PETRIE, "whom one can almost call the founder of Egyptian Archaeology" are especially prominent. *Die Ägyptologie, Zweck, Inhalt und Bedeutung dieser Wissenschaft und Deutschlands Anteil an ihrer Entwicklung* (*Der Alte Orient* 1921).

PIEPER reviews at some length SCHEFFLER, *Berliner Museumskrieg*, the work of a popular writer who wishes the Egyptian Museum and that of the Antiquities of the Nearer East at Berlin to exhibit only objects of art and to leave all the rest (including those which illustrate the civilisation and history) to special collections, *Or. Lit.-Zeit.* XXV, 277-279. He has also reviewed SCHÜTKE, *Sinn und Aufgaben des Berliner Ägyptischen Museums*, *ib.* XXIV, 295-296.

According to an article by G. BOTTI, the Drovetti collection which constitutes the basis of the Turin galleries, was made in 1818-1820 at Thebes with some acquisitions from Abydos, Memphis and Tônah (*sic*); it had reached Leghorn by August 1820. A large number of the papyri, historical, magical etc., in fragments, are still inedited but have now been sorted; they belong, apparently, to the Twentieth Dynasty and were probably from Deir el-Medînah on the west bank of Thebes. *La Collezione Drovetti e i papiri del r. Museo Egizio in Torino*, in *Rend. d. R. Acc. N. dei Lincei* XXX, 128-135 and 143-149.

Professor PEET has written upon some fallacious arguments in Archaeology, *The Antiquity of Civilisation, being a plea for some attempt to formulate the laws which should form the basis of archaeological argument* in *Journal* VIII, 5-12.

Since 1896 Professor CAPART has been at work on a very elaborate bibliography of all that concerns Ancient (Pharaonic) Egypt. At the end of 1914 it consisted of over 30,000 slips, classified by author's names; by 1920 he had rearranged them in order of subjects under more than a thousand headings, grouped however in classes such as geography, history, and religion, and when very large, subdivided chronologically. Greek papyri and Coptic are outside the scope of the undertaking and therefore are included only in special cases. This bibliography is deposited in the remarkably rich Egyptological library of the museum, where it is continually being added to and improved, a special assistant being employed upon it. Subscribers are invited to share in the benefits of the bibliography, and references will be supplied from it on payment of a small fee. This enterprise should prove very useful to others than its originator. *Une Bibliographie de l'Égypte Ancienne* (Extr. des *Bulletins de la Cl. des Lettres Acad. roy. de Belgique* 1921, pp. 537-542, cf. *Aegyptus* III, 194-196). I may here be permitted to record my debt to M. CAPART for some improvements in method in preparing the annual bibliography for the *Journal*.

ROEDER has given a bibliography of recent work down to 1919 *Ägyptologie* (1919) in *Zeit. d. Deutschen Morgenl. Gesell.* LXXIV, 304-317.

The *Index des Tomes XI-XX* of the *Annales du Service des Antiquités de l'Égypte*, just issued, is a thorough piece of work which will be of the greatest value to students, consisting of no less than fourteen separate indexes.

During the last three years our Treasurer, Mr. W. R. Dawson, has kept the readers of the *Asiatic Review* informed of recent activities of the Egypt Exploration Society, Sir Ernest Budge, etc., by a series of papers and reviews of recent English publications.

The *Cairo Scientific Journal*, of which the last number had appeared in 1917, has resumed publication with vol. X. The papers in it regard chiefly economic problems. An article by R. H. Fossas on the *Siva Oasis* (ib. pp. 1—8) has an interesting account of the method of cultivating gardens in that land of scanty water-supply, and of its general economic condition. The present inhabitants of this once famous "Oasis of Ammon" number about 3000 souls.

Dr. BRECCIA's compact and excellent guide to the ancient and modern city of Alexandria, *Alexandrea ad Aegyptum* is now issued in an English edition. The bibliographies attached to different sections and to objects of special importance in the museum are an example of the thoroughness and utility of the work.

M. JONDET, chief engineer of the maritime works of Egypt, has just published a memoir, *Le Port de Suez* giving an historical account of the port (dating originally from the 15th century) with plans for its improvement. (*Mém. prés. à la Soc. Sultaniéh de Géographie* Tome I, 1919.)

ELLIS reviews SCHWARTZ, *Kalahari*, in which South African experience has suggested conclusions regarding the desiccation of the Sahara and the history of the Nile Valley, *Ancient Egypt* 1922, 27.

Dr. HOME, the Director of the Geological Survey of Egypt, writes on the *Egyptian Wilderness*, country for the most part difficult to explore and little known even to the nomads, describing the several areas, the parallel ridges of Mariūt, the coastal dunes of the Delta, the sand dunes of North Sinai, the longitudinal dunes of the Eastern Desert; the character of the Western or Libyan desert of Egypt, the Oases, the Nile Valley, the Ma'aza limestone plateau, the great antiquity of Egyptian desert erosion, erosion effects in the Red Sea hills, rain-erosion in schist country, the Red Sea and its associated gulfs of Suez and Aqaba (these are probably not the result of a crack, but of erosion of an arched portion of the earth's crust) and the industrial development of the Egyptian wilderness. *The Geographical Journal* LVIII, 249—276.

SCHUBART reviews LEGRAIN, *Louqsor sans les Pharaons* and LAGIER, *L'Égypte Monumentale et Pittoresque* in *Or. Lit.-Zeit.* XXV, 150—151. A new work by LAGIER, *À travers la Haute Égypte; nouvelles Notes de Voyage* is reviewed by CALDERINI, *Aegyptus* II, 369.

Miss W. S. BLACKMAN contributes to *Discovery* (III, 154—158) an article on *Fertility Rites in Modern Egypt* as practised among the women. G. S. COLIN writes *Notes de dialectologie arabe* II, *Technologie de la batellerie du Nil* in *Bull. Inst. Fr. d'Arch. Or.* XX, 45—87, and MOSSÉNI and AUDEBEAU, *Quelques notes sur l'Histoire de l'Ébène Égyptienne* in *Bull. de l'Inst. d'Égypte* III, 27—48.

G. W. MURRAY's paper on *The Nilotic Languages* has been the subject of further notes by the author and by F. W. THOMAS in *Man* XXI, no. 109.

MACMICHAEL, author of *The Tribes of Northern and Central Kordofān* (1912) and of *Camel Breeds used in Kordofān* (1913) has now published *A History of the Arabs in the Sudan* in two volumes. The first volume begins with an account of the non-Arab background of peoples, especially the Nubians and inhabitants of Darfur, with some vocabularies of the Darfur tribes, and, proceeding to describe the penetration of the Sudan by the Arabs in the later Middle Ages, concludes with separate accounts of their existing tribes. The second volume consists chiefly of translations of and commentaries on the native historical and genealogical records. Although, unfortunately, none of these records are of any antiquity, owing probably to the jealous destruction of such documents by the Dervish rulers, they embody a certain amount of genuine tradition. Reviewed by J. W. CROWFOOT in *Sudan Notes and Records* V, 61—64.

Sudan Notes and Records V, no. 1—2 contains several non-archaeological articles of interest to Egyptologists, such as CROWFOOT's on *Wedding Customs in the Northern Sudan* (pp. 1—28), MACMICHAEL's on *Pottery Making (Blue Nile)* (pp. 33—38), and THOMAS' note of a remarkable passage in Ibn Batuta (quoted by Sir SAMUEL BAKER) concerning the burial of courtiers with a dead king, to illustrate REISSNER's discoveries at Kerma (p. 57).

EXCAVATIONS AND EXPLORATIONS.

Professor WIEDERMANN has given to the Akademisches Kunstmuseum of Bonn the collection of photographic negatives taken by EISENLOHR some fifty years ago of inscriptions at Philae, Edfu and Thebes, and in Nubia, as well as of papyri in museums, etc., *Or. Lit.-Zeit.* XXV, 138.

In his report in the *Comptes Rendus* of the Académie des Inscriptions, 1921, 308—316, M. LACAU informs us that he has visited the temples under his charge in Lower Nubia. The little Roman temple at **Tafah** has collapsed and must be entirely rebuilt on another site, safe from the river. At **Philae** the gate of Hadrian has given way but can easily be reconstructed. At **Aswan** the great unfinished obelisk is being cleared by ENGELBACH and already a length of 36 metres (110 feet) has been exposed, greater than any hitherto known. At **Thebes** the sarcophagus of Hatshepsut as queen-consort, discovered by CARTER, has been lowered down the cliff by BARATZKE, and taken to the Cairo Museum. At **Karnak** three columns of the temple of Khons must be repaired; PILLET, who has worked in Persia and Syria, has been appointed to the post left vacant by the lamented death of LEGRAM, and the publication of the plans and of other architectural work is to be pushed forward; one new discovery has been made, of a staircase and chambers of construction in the left hand tower of the great First Pylon. At **Denderah**, the Birth House has been completely cleared and the plan of two colonnaded courts in front recovered; these had been razed to the ground and much of the material employed in building a Christian basilica at the side; the positions, however, of both walls and columns can be restored from the architect's original markings on the pavement. The roof of the temple was sloped to carry off storm-water to three gargoyles. LEFEBVRE has been occupied with the memoir on the tomb of Petosiris at **Tânâh**. At **Saqqarah** the Director in consultation with FIRTH has decided to investigate successively the temples and approaches of all the royal pyramids, beginning with that of Teti. At the same time mastaba-tombs are to be investigated entire, not merely the tomb chapels; as a beginning the eastern and southern faces of the tomb of Kagemni have been cleared with most interesting results. The exterior is sculptured; the tomb-pit, twenty metres deep, leads to a decorated chamber in which the sarcophagus lay with remains of a rich funerary equipment. Many small tombs of the Middle Kingdom also with statues and stelae have been laid bare in the process of clearing. At **Benha** a tomb of a priest of the sacred falcon of Athribis of Greek period has been found, the great sarcophagus built into a solid mass of masonry on the surface. From **Tell-el-Yahudiyyeh** a number of Jewish stelae inscribed in Greek have been obtained of the age of Augustus.

In a general account of Egyptian burial customs, MARRO gives some particulars of the excavations of the Italian Archaeological Mission under SCHIAPARELLI in and about 1914 at **Gau**, **Thebes** and **Gebelein**, and summarizes the results of his own researches as anthropologist attached to the Mission for two years, *Les Nécropoles égyptiennes et les fouilles de la Mission Archéologique italienne in Annales de l'Université de Grenoble XXXII*, 399—432.

Meroë. Dr. REISNER returned to Egypt on Jan. 21st 1922 to continue the excavations which his assistant Mr. DUNHAM had been carrying on at Kabushiya. The work on the southern and the northern groups of pyramids is now finished, and is well advanced on the western group, in the plain. Boston Museum of Fine Arts, *Bulletin XX*, 24.

Além. In the desert ten miles north of the pyramids of Meroë, two reservoirs, a later (?) well, the platform of a small temple entirely ruined, and a cemetery in which are the remains of a large rectangular structure which may mark a tomb. ADDISON and DUNHAM, *Além, a Meroitic site in Sudan Notes and Records V*, 39—46.

Faras. The second instalment of the results of the Oxford excavations of 1910—1912 with plans and other illustrations, is preceded by a sketch of the history of Nubia from the Old to the New Kingdom. The finds of this period comprised a Nubian "C-group" cemetery (dating between the Old and the Middle Kingdom), an Egyptian Fort of the Middle Kingdom, and several New Kingdom temples including one to Hathor of Abeshek and the temple and post of Sehtep-entér, built by Tut'ankh-amûn. Some Egyptian inscriptions come from further south at **Serra** and like those of Faras are published in full. The complete records will be deposited in the Ashmolean Museum. GRIFFITH, *Oxford Excavations in Nubia in Liverpool Annals of Archaeology VIII*, 65—104.

Kubanieh. A lengthy review of JUNKER's reports *Friedhöfe von El-Kubanieh-Süd and El-Kubanieh-Nord* in the *Denkschriften* of the Vienna Academy, is by NAVILLE in *Rev. Archéologique XIV*, 158.

El-Kâb. Having already described the walls of the town Somers CLARKE elaborately describes the temple remains, especially those of the two great temples, that of Amenophis II impinging on the ancient temple which was rebuilt in the Saite period. *El Kâb and its Temples in Journal VIII*, 16—40.

Thebes. In *Rassegna d'Arte VII*, 1—4, SCHIAPARELLI has described the excavation of the tomb of Kha' in 1906, according to the *American Journal of Archaeology XXV*, 86.

The Egyptian expedition of the Metropolitan Museum in 1920—21 investigated a pyramid-platform of the Eleventh Dynasty (which WILLOCK had recognised in 1914) beneath the cliffs in a valley behind the Ramesseum, together with tombs of the same period, but obtained little result, the best find being three fine coffins and the well preserved New-Kingdom mummy of a charioteer, a long-bearded foreigner buried with his whip. But a great reward was obtained by the ingenious discovery of the burial pits of two queens of the Eleventh Dynasty (one a mere child named "Cat") beneath the pavement of the Menthotep temple at Deir el Bahari; these yielded the splendid sculptured and painted sarcophagus of 'Aa-shait, her beautiful wooden coffin, some necklaces and other remains. WILLOCK, in the *Egyptian Expedition 1920—21*, 29—53 (*Bulletin* for Nov. 1921), with many illustrations.

The chief work of N. de G. DAVIES for the Tytus Memorial Fund was the copying of the tomb of Neferhotep (No. 49), a most interesting monument, known to the early explorers but now in very bad condition. It dates from the reign of Ay and is one of two tombs at Thebes subsequent to Akhenaton which show strongly the influence of his style (*ib.* pp. 19—28).

Mrs. DE FOREST prints a curious record of her visit to Thebes in 1870 when objects were offered to her father for purchase by the dealer EDWIN SMITH, which may have belonged to the great find of royal mummies. *A Reminiscence of a Possibility* in *Bulletin* of the Metr. Mus. XVI, 192—193.

The Survey of Egypt has determined accurately the azimuth for the axis of the temple of Karnak, making the late Sir NORMAN LOCKYER's theory concerning its intention impossible. RICHARDS, *Note on the Age of the great temple of Ammon at Karnak as determined by the Orientation of its Axis* (Survey of Egypt, Paper No. 36). See Major LYON's note upon it in *Journal* VII, 220.

Balabish. Mr. WAINWRIGHT's memoir is reviewed by PEET in *Discovery* III, 110—111, and by WRESZINSKI in *Or. Lit.-Zelt.* XXV, 33—34.

Abydos. Work on two groups of graves of the First Dynasty connected with royal tombs; the "Osireion" is attributed to the Middle Kingdom on the ground of the materials used in it and is considered to have been entirely subterranean but above the water level of those remote days. PETRIE, *Notes and News in Ancient Egypt* 1922, 30—32. The burials, apparently of courtiers slain at the death of the king, are summarily described by Prof. PETRIE in *Man* XXII, No. 74.

Tell el-Amarna. Superposed floors in the houses, a workmen's village on a higher level untouched by white ants, and dedications to Isis, Ammon and the god Shed, were among the principal results of the first season's work. PEET, *Excavations at Tell el-Amarna* in *Journal* VII, 169—185, *cf. id.* in *Man* XXI, No. 84. In the second season the workmen's village was thoroughly investigated, also the house of the vizier Nakht in the main city, a temple at Hagg Qandil which was still in use in the Twentieth Dynasty, and remains of a small palace at Hawata in which the queen's figure and name had been altered to those of her eldest daughter. WOOLLEY, *id.* in *Journal* VIII, 48—82. The famous Mycenaean potsherds are prominent in both reports and appear to be truly of the date of Akhenaton.

Meir. Note of Dr. BLACKMAN's work of 1920—21 on a tomb of Dynasty VI, *Journal* VII, 216.

Ahnas. A summary of finds with ebony statuettes and coffin of Pser, PETRIE, *Discoveries at Herakleopolis* in *Ancient Egypt* 1921, 65—69.

Lisht. The New York excavations here were resumed after six years interval in 1920, at the pyramid of Amenemmes I, clearing the remaining western side. The burial-places of the princesses had been completely plundered out. The pyramid temple shows a change of plan and reduction of scale; blocks sculptured for the original scheme were used in foundations for the later, presenting a serious problem. The building stone throughout was largely derived from mastabas of the Old Kingdom; within three centuries of its completion a thorough plundering of the pyramid and its necropolis began, and a village sprang up which yielded to the excavators interesting objects and house-plans. A foundation deposit of the pyramid was found, a plaque in it giving the pyramid a name different from the usual one. Fragments were found with the names of king Khety of Dyn. IX and of Khenzer who may be attributed to Dyn. XIV. MACE in LYTTON's report of the *Egyptian Expedition for 1920—1921*, pp. 5—19 (in Part II of *Bull. Metrop. Mus.*, New York, Nov. 1921).

Memphis. A careful restoration in colours by BAKER of *The Throne Room of Merenptah* discovered in 1917, is described by C. S. FISHER in the *Museum Journal* (Philadelphia), pp. 30—34. The building had been destroyed in a great conflagration, but the bed of ashes and rubbish had been left undisturbed, preserving the walls to a considerable height.

Alexandria. The latest report of the Museum by Dr. BRECCIA is a substantial volume containing accounts of excavations at the Serapeum and in the necropolis of Pharos, illustrated with three plans

and seventeen large photographic plates of buildings, tombs and antiquities (appended is a catalogue of the archaeological library which is of growing importance). *Mon. d'Alexandrie, Rapport sur la marche du Service du Musée pendant l'exercice 1919-1920*.

A collection of fifty-four maps and plans of Alexandria is published by JORDER, beginning with one from a Vatican MS. of Ptolemy of 1472, the next being of 1548, the next of 1570, after which date they follow in quick succession to 1920. In the first "Pompey's Pillar" appears as the *sepulchrum Pompeii* with a small building perched upon its wide capital! The city was then enclosed within strong walls, on the mainland, not extending to the Heptastadium. *Atlas Historique de la Ville et des Ports d'Alexandrie*. THUILLÉ, writing *Commentaires sur l'Atlas Historique*, besides interesting notes on those here gathered together suggests many additions that might be advantageously made to the collection. On pp. 66-71 he deals with the map of the submerged constructions on the north of the island of Pharos. He disbelieves altogether in the existence of harbour-works on that exposed side, and considers that the remarkable remains discovered here are sufficiently explained by a passage in Josephus (*Bell. Jud.* IV, 614) which may mean that the island was completely surrounded by strong *sea walls* to defend it against the violence of the waves; this is reviewed by BRUGGIA (*Bull. Soc. Arch. d'Alexandrie*, 18, 83-84), who admits the attractiveness of the explanation.

Isthmus of Suez. In the continuation of his *Notes*, CLÉDAT writes on Moses' Wells; Shī-hôr, which he would identify with Shur and with Zaru as a city, not a river or canal; Tacasarta identified with Faqûs; "The Walls of the prince" (Anbu-heq) = Zaru, a very long but not very satisfactory section; he also gives the plan of an Arab fortress enclosing two wells (modern Gismel-Clysma) near Suez, and an interesting plan of the ruins of Tell el-Maskhûtah ("Pithom") a site now unfortunately much occupied by gardens and houses, and therefore difficult to explore. *Bull. de l'Inst. Fr.* XVIII, 167-197.

PUBLICATION OF TEXTS.

a. From sites in Egypt &c.

Philae. Important and careful review by SPIEGELBERG of W. MAX MÜLLER, *Egyptological Researches III, the bilingual Decrees of Philae* in *Or. Lit.-Zeit.* XXV, 308-310.

Edfu. The publication of the temple begun many years ago by ROCHERON and interrupted by his death in 1892 has been continued by CHASSINAT who has now both completed the first volume by the issue of supplementary plates and a useful index of titles of scenes, and at the same time finished the second volume of which he himself issued a first fascicule as far back as 1897. This completes the publication of the interior of the great block of chambers round the sanctuary as far as the second or inner hypostyle; but an enormous amount of sculpture and inscriptions remains to be treated and apparently hardly any more material exists in the collections of squeezes in Paris. M. CHASSINAT, however, will continue the work as soon as opportunity occurs. *Le Temple d'Edfou publié in extenso*, tome II, 1897-1918-1920.

Thebes. *The Tomb of Antefoker* by DAVIES is reviewed by WRESZINSKI in *Or. Lit.-Zeit.* XXV, 59-61, by FAHINA who translates the harper's songs, following GURN's interpretation, in *Aegyptus* III, 105-108, and by WEIGALL in *Journal Royal Asiatic Soc.* 1921, 602-606.

Abydos. Stela of DYN. XIX, found by GARSTANG and now in Brussels, with hymn of praise to Osiris, elaborately edited by SPELERS, *La Stèle de Maï* in *Rec. de Trav.* XXXIX, 113-144.

Saqqârah. Mastaba (D. 2) of Ka-em-remt of the Fifth Dynasty, now in Copenhagen except one wall in the Cairo Museum, completely edited in photographs and hand copies by Miss MOGENSEN, *Le Mastaba Égyptien de la Glyptothèque Ny Carlsberg*; reviewed by WRESZINSKI, *Or. Lit.-Zeit.* XXV, 308.

The great edition of the Saqqârah-Pyramid-texts by SETH, *Die altägyptischen Pyramidentexte nach den Papierabdrücken und Photographien des Berliner Museums neu herausgegeben und erläutert*, has been continued after a pause of twelve years by the issue of the third volume with a prospect of a fourth to follow soon. The first two volumes contained the elaborately revised copies of the texts, in parallel lines where they repeated each other, and references to the sources authorising restoration of imperfect passages. Thanks to American financial help procured by Professor BREASTED and Dr. EMER Professor SETH's marvellously careful and scholarly work could be proceeded with, on a less extensive scale indeed than was originally intended, but it is to be hoped without great diminution of positive value. The new volume contains the critical apparatus for the text (including notes of numerous and important corrections by the ancient inscribers); the description of the position and condition of the inscriptions in detail on

the walls of the chambers and passages; and finally a most necessary and most convenient concordance of the various numberings of texts and lines, according to MASPERO's edition, the wall-position, SCHACK's index and SETHE. The next volume is to deal with the epigraphy of the texts. It would appear that translation and philological and other commentaries are still far off. *Ars longa, vita brevis*.

b. From Museum, etc.

Cairo. Transcript into hieroglyphs and thorough analysis of a very important papyrus of accounts of the royal household at Thebes in Dyn. XIII which has been the subject of several studies in former years. SCHARFF, *Ein Rechnungsbuch des königlichen Hofes aus der 13. Dynastie (Papyrus Boulaq Nr. 18)* in *Zeit. f. Äg. Spr.* LVII, 51—68 and 1**—24**.

Geneva. Stela of the reign of Sesostrius III, of AMENY, NAVILLE, *Mélanges publ. par la Soc. auxil. du Musée* 1922, pp. 1—8; the stela of his son Si-satet at Bâle was published by the same scholar in 1919 (*Arch. Suisses d'anthropologie générale* III, 200—205).

Strasbourg. Transcript of a Ramesside ostrakon concerning the magical healing power of Horus which is referred to by Diodorus but is rarely mentioned on Egyptian monuments, SPIEGELBERG, *Horus als Arzt* in *Zeit. f. Äg. Spr.* LVII, 70—71.

Brussels. Review of SPELERS, *Le Papyrus de Neferrenpet* by WRZSINSKI in *Or. Lit.-Zeit.* XXIV, 160.

Copenhagen. Miss MOGENSEN's *Inscriptions hiéroglyphiques du Musée Nationale de Copenhague*, reviewed by WRZSINSKI in *Or. Lit.-Zeit.* XXIV, 207.

London. The sixth part of *Hieroglyphic Texts from Egyptian Stelae, etc. in the British Museum* containing fifty lithographic plates with descriptions by HALL. The monuments illustrated range from the Third Dynasty to the Nineteenth and include the scenes and inscriptions of the mastaba of Uraren-Ptah of Dyn. V, fragments from Deir el-Bahari and stelae from Abydos.

Stela 197 of the British Museum, belonging to an official of the reign of Sesostrius I, is translated and discussed by MONET. On it Antef enumerates his own virtues displayed in the audience-hall of the vizier under whom he held a principal post; it illustrates the Egyptian ideal at that time for the conduct of an officer of the court towards the various types of suppliants. *La Profession de foi d'un magistrat sous la XII^e Dynastie* in *Cinquantenaire de l'École pratique des Hautes Études* pp. 73—89.

c. Miscellaneous.

Edition with detailed commentary of a curious religious text found on a few monuments of the Twelfth, Eighteenth and Twenty-sixth Dynasties accompanying the Table of Offerings. It is a hymn to Nefertem and his flower (as was first pointed out by Professor NAVILLE) and was evidently to be recited during the performance of the ritual of offerings. KRES, *Ein alter Götterhymnus als Begleittext zur Opfertafel* in *Zeit. f. Äg. Spr.* LVII, 92—120.

SETHÉ has begun an edition of some funerary spells concerning the knowledge of the souls of certain sacred places. They are found as a connected group on coffins of the Middle Kingdom and most of them survived in some disorder as caps. 107—109 and 111—116 of the Book of the Dead. This edition is the result of SETHÉ's study with four pupils and collaborators; the portion now published comprises a general title, found only in the Middle Kingdom "To know what Thoth knows of safeguards (?), to know each temple, and to be a spirit in the necropolis," and the first four spells, viz: B. of D. cap. 115, the Spirits of On; a spell concerning the Spirits of the Newmoon festival, found only in M. K.; and B. of D. caps. 114, 116, the spirits of Hermopolis. Few of the M. K. coffin texts are as yet available, but the spells vary greatly at different periods through corruption and consequent changes, hence the *apparatus criticus* and commentary are very elaborate. *Die Sprüche für das Kennen der Seelen der heiligen Orte* in *Zeit. f. Äg. Spr.* LVII, 1—50.

Inscriptions of an official of Athribis (?) on a very large scarab of lapis-lazuli, and of a large historical scarab of Tuthmosis IV. CHASSINAT, *Rec. de Trav.* XXXIX, 110.

Stela of a general Jemi of the Heraeopolite period, whose operations extended "from Lower Nubia to Canopus," ALLEN, *The Story of an Egyptian Politician* in *Amer. J. of Sem. Lang.* XXXVIII, 55—62.

d. Hieratic and Demotic.

Hieratic papyrus of the Roman period belonging to the series published in LIEBLEIN's *Que mon nom fleurisse*, elaborately published by SPELERS, *Un Papyrus funéraire de basse époque aux musées royaux du Cinquantenaire de Bruxelles* in *Rec. de Trav.* XXXIX, 25—43.

Edition of 33 demotic texts from mummy cartonnage found at Ghorân and Magdôla, five dating from the pre-Ptolemaic age, the rest from Philadelphus to Energetes; their condition is in general very poor, but the labour of editing has been well rewarded by the novelty of their contents. SOTTAS, *Papyrus démotiques de Lille*, tome I, reviewed by GRIFFITH, *Journal VIII*, 110—111; CALDERINI, *Aegyptus III*, 233—234.

HISTORY.

The veteran Egyptologist WIEDEMANN has written a systematic handbook, admirably compact, of the culture of Ancient Egypt with a few illustrations, full bibliographical references and index, all contained in about 450 pages; it should be most useful both to specialists and to others. *Das Alte Ägypten*, reviewed by Miss MURRAY in *Man XXII*, No. 42 and by PILCHER in *J. Roy. Asiatic Soc.* 1921, 600.

CAPART, *Les Origines de la Civilisation Égyptienne* is reviewed by WRESZINSKI in *Or. Lit.-Zeit.* XXIV, 296, and by ZELTKER in *L'Anthropologie XXXI*, 135—136.

PESERICO, *Cronologia Egiziana verificata astronomicamente* is reviewed (unfavourably) by ROST, *Or. Lit.-Zeit.* XXV, 73.

LEHMANN-HAUPT reviews BORCHARDT, *Die Annalen und die zeitliche Festlegung des Alten Reiches*, contributing some confirmatory evidence for his chronological system from the Ebers Calendar, *Zur ältesten ägyptischen Chronologie* in *Klio XVI*, 200—202.

SAYCE. *The Date of the Middle Empire in Ancient Egypt* 1921, 102—103 (with note by the Editor), quotes two alabaster vases in the Louvre, one of which is of a form well known in Dyn. X, bearing respectively the names of Rimus, son of Sargon of Akkad, about 2800 B. C. and of Naram-Sin a little later; he also refers to a stela of a *patesi* Sargon of Assur in 2180 B. C., who claims to have conquered Egypt.

PIEPER, who himself wrote a brief study of the period nearly twenty years ago, writes a long and important review of WEILL, *La Fin du Moyen Empire Égyptien* in *Or. Lit.-Zeit.* XXV, 102—109. Unlike WEILL, he clings to the fragments of the Turin Papyrus as a trustworthy source for the order of the reigns in this confused time. He believes that during most of it Egypt was divided into several kingdoms; and that the Turin papyrus represented, probably, the tradition of Lower Egypt, which if it took in the local kings, Antef, Sebekemsaf, etc., of Thebes, would have added them only as an appendix to the Lower Egyptian series; and shows that these Thebans do not occur in their proper chronological place in the papyrus, *i. e.* among the Sebekhotps of Dyn. XIII. PIEPER endeavours to put together the little that can be ascertained from the existing material regarding the history of the time.

WEILL, on the strength of GARDINER and GUNN's edition and version of the Carnarvon tablet in the *Journal*, reconsiders the position of Kamosi, the war with the Hyksos and the dynasty of Avaris, *Kames de Thèbes; les rois thébains, les Asiatiques en Égypte et la dynastie des Apopi à la veille du Nouvel Empire* in *Cinquantième de l'Éc. pr. d. Hautes Études* 25—41.

GAUTHIER, *Les Fils Roiaux de Kouch et le personnel administratif de l'Éthiopie* in *Rec. de Trav.* XXXIX, 179—237, supplements Professor REISNER's article in *Journal VI* from his large bibliographical collections (one viceroy, Psor III, is added as No. 19 on doubtful authority, in the reign of Ramesses IV, and at the end in Dyn. XXII a certain Osorkon-ankh, who seems to have been viceroy), and criticises and amplifies REISNER's paper in many directions.

SETHE has written an important paper on Akhenaton in which he argues that

1. In the New Kingdom there was a very distinct tendency to reduce the old multiplicity of gods (originating chiefly from local fetish worships) to a few types of cosmic deities or of deities connected with the family of Osiris in the Heliopolitan Ennead; Amenhotp IV crowned the movement by combining the powers of all in the Sun-god. The cartouches of Aton occur in two forms; the older one must be translated "Liveth Re'-Horus of the two horizons, who rejoices in the horizon, in his name as Shu, which is Aten;" the later one, adopted soon after Akhenaton's eighth year, runs:—"Liveth Re' the ruler of the two horizons, who rejoices in the horizon, in his name as Father of Re' who hath come (back) as Aten."

2. The celebration of a Jubilee by Akhenaton, apparently before his seventh year, agrees with other evidence to show that he was not a child at his accession. Probably he was not less than 45 years old when he died. The mummy that was found in his coffin at Thebes accompanied by other relics saved from his family tomb at El Amarna, seems to be of some young person buried before the ninth year of his reign. *Beiträge zur Geschichte Amenophis IV.* in *Nachrichten* of the Göttingen Ges. d. Wissensch. (Phil.-Hist. Kl.) 1921, 101—130.

ENGELBACH points out that the titles of the prince Pre'-messe(-neb-wehen) on his sarcophagus from Heracleopolis indicate that he was heir to the throne. Probably he was the son and heir of Sethos I who was eventually replaced by Ramesses II. *The Sarcophagus of Pa-Ramesses in Ancient Egypt* 1922, 9—13.

SPIEGELBERG points out that Petosiris, the high priest of Thoth at Hermopolis, whose beautiful shrine and tomb were excavated in 1920 by LEFÈVRE, may with great probability be identified with Petosiris the philosopher mentioned by Pliny and other Greek and Roman writers. The tomb belongs approximately to the time of Alexander and was an object of Greco-Egyptian pilgrimage in the second century B. C. when the cult of the wise men Imuthes and Amenophis also came into prominence. The philosopher is said to have lived under King Nechepsos, who may have been one of the petty kings at the end of the Persian rule and not the Nechepsos who appears among the founders of Dyn. XXVI. Petosiris of Hermopolis evidently had a good share in welcoming the Greek "deliverers" and naturally his memory would have been honoured by them. It is to be hoped that the full publication of the tomb may give further evidence of his personality and career. *Eine neue Spur des Astrologen Petosiris in Sitzungsberichte* 1922, 3 of the Heidelberg Academy.

The same scholar discusses the relationship of the three texts of the decrees of Rosetta and Canopus, and concludes that the substance of the decrees was probably first proposed by the priests in demotic, but that they were drafted jointly by a Greek and a native priest; thereafter the Greek was the leading text, but the three versions are by no means literal translations of it, each having points of difference from both of the others. *Das Verhältnis der griechischen und ägyptischen Texte in den zweisprachigen Dekreten von Rosetta und Canopus* (Papyrus Inst. Heidelberg, Schrift 5). He finds in a Serapeum-stela copied for REVILLIOT, a date of the fifteenth year of Ptolemy XI, "while he was with the army in Peremün (Pelusium)." *Ein historisches Datum aus der Zeit des Ptolemaios XI. Alexandros in Zeit. f. Äg. Spr.* LVII, 69; and translates the inscriptions on a statue from Denderah of Pamenches, who was probably governor (epistrategus) of the Thebais and high priest of many divinities in the time of Augustus, adding a list of Ptolemaic and Roman strategi known hitherto from Egyptian texts, *Der Strateg Pamenches, ib.* 88—92.

FOREIGN RELATIONS.

GERMAIN gives a digest of the main points of ELLIOT SMITH's theory that invention does not repeat itself, Egypt especially being the home of inventions which spread over the world, with critical remarks and further illustrations, *Les théories de la Civilisation précolombienne et les théories d'Elliot Smith in L'Anthropologie* XXXII, 93—128.

The late Professor GIUFFRIDA-RUGGIERT, à propos of CAPART, *Les Origines de la Civilisation Égyptienne*, re-states his views on the races constituting the ancient Egyptians, distinguishing an Ethiopian population of Upper Egypt from a Mediterranean-Libyan population of Lower Egypt: civilisation developed among the latter, who represented the southernmost extension of the ancient European races. *The Actual State of the Question of the most ancient Egyptian Populations in Harvard African Studies* III, 3—7.

Europe. The first volume of Sir A. J. EVANS, *The Palace of Minos at Knossos*, covers the ages of habitation of Knossos from the neolithic strata beneath the palaces—equal in depth to all the subsequent deposits—down to the end of the Middle Minoan which is contemporary with the Hyksos period in Egypt. Two inscribed Egyptian objects are figured, namely the Middle Kingdom statuette of User in diorite with its difficult inscription, found in the palace associated with pottery of the second half of Middle Minoan II—this is discussed at p. 286 et seqq.; and the alabaster lid of a large unguent vase inscribed with the name of the Hyksos king Sewesereare'-Khyan, about 1658—1700, belonging to the first half of Middle Minoan III, and bearing witness according to Sir Arthur to renewed intercourse of Crete and Egypt under Khyan's settled rule (pp. 419 et seqq.), this intercourse probably having been conducted largely by way of the ancient port of the Island of Pharos (pp. 294 et seqq.¹; but see above p. 266 **Alexandria, Thule**). The influence of Egypt at Knossos is visible at the earliest Minoan period in the presence of a Pre-dynastic Egyptian stone vase at the junction of the neolithic and chalcolithic deposits; a meander pattern is found in Egyptian seals of the intermediate period between Dyn. VI and XII related to that on seals of the early Minoan period, and in the Twelfth Dynasty Middle Minoan II ware is found in Egypt corresponding to the discovery in Crete of the above-mentioned

¹ HOGARTH, however, in a review in the *Geographical Journal* LX, 220—221, doubts the possibility of the remains discovered on the north of the island representing a harbour.

Egyptian statuette. The dating of the wonderful civilisation of Cnossus at present depends mainly on Egyptian synchronisms.

HALL reviews HAEZIDAKIS, *Tylissos à l'époque minoenne* in *Journal VIII*, 108—109.

On a famous Hydria of the sixth century from Caere there is a lively representation of the Hercules-Busiris legend, the figures and dress showing direct acquaintance with Egypt. The master who painted it seems to have been inspired too in part by representations upon Egyptian temples in which the Pharaoh carries off to his war chariot a bundle of prisoners tucked under his arm; in his version the Greek artist of course turns the tables upon the Egyptians. Two examples of the Egyptian motif are figured to illustrate the point, one from the sculptures of Sethos I at Karnak, the other from a late (Macedonian?) fragment in Berlin, No. 3425. MATZ, *Zur Wiener Busiris-Vase* in *Jahrbuch d. D. Arch. Inst.* XXXVI, 11—14.

The Etruscan text on linen bandages of an Egyptian mummy is the subject of elaborate investigation by LATTES, *Saggio di traduzione delle bende etrusche di Agram* in *Rendic. d. Acc. dei Lincei*, Ser. V, vol. 30.

ISIDORE LEVY learnedly traces the influence of the Egyptian goddess Ma'at on the early Hellenistic conceptions of Dike, and of the twin Ma'at, n-M'ty in Egyptian, Nm'ty in the Aramaic inscription of the Carpentras stela (which he would assign to the early Ptolemaic age), on the Nemesis goddesses; and considers that the Phoenicians resident in Egypt at a somewhat earlier date, by some curious preference, adopted into their names that of the rare Egyptian god Shesm. *Divinités Égyptiennes chez les Grecs et les Sémites* in *Cinquantiennaire de l'Éc. pr. des Hautes Études*, 271—288.

ASIA. DR MORGAN contributes to *L'Anthropologie* a long, illustrated, study of prehistoric and early Egypt, *De l'influence asiatique sur l'Afrique à l'origine de la civilisation égyptienne*, comparing especially the early productions of Elam: in regard to the people, palaeoliths, neolithic products, language, writing, pottery, *L'Anthr.* XXXI, 185—238, art, the cylindrical seal, architecture *ib.* 425—468, agriculture, fauna, metals, deities, burials, chronology *ib.* XXXII, 39—65. The conclusion is that the civilisation of Egypt was brought from Asia by Sumero-Accadian invaders who found the country in a purely neolithic stage and introduced the use of metals, establishing their own kingdom in Lower Egypt. The natives eventually turned on their teachers and, proceeding from Upper Egypt, drove them out and united the Two Lands.

LANGDON writes on *The Early Chronology of Sumer and Egypt and the similarities in their culture*. Arguing that Naram-Sin 2795 B.C. borrowed his system of dating by events from Egypt in the time of the Second Dynasty, he obtains a synchronism from which the date of Menes may be placed about 3000 B.C. The exceptionally artistic sculpture of Naram-Sin also suggests a special connexion with Egypt at that time, but Māgan and Meluhha, which he conquered and the names of which were later applied to Egypt and Ethiopia, in those days were located on the Persian Gulf. The prehistoric art of Egypt shows remarkable points of contact with that of early Sumeria, especially in the design found on palettes of a tree between two animals. The knife-handle of Gebel el-'Arak has many points of contact, the hero (not Gilgamesh, however) in Sumerian dress who dominates two lions, the two dogs watching him like those who watch Etana. LANGDON also finds equivalents in Sumerian pictographs for some of the pottery marks from the Royal Tombs at Abydos. This paper displays the enormous advance made as to the chronology and the succession of the early dynasties of Babylonia through recent finds of lists of kings. *Journal VII*, 133—153.

Recent discoveries have thrown new light on the myth of Marduk. Ashur in Assyria was the Marduk of Babylonia and to Marduk was attached an epithet Asari. The Tat-column of Osiris may be connected with the sacred cedar (?) of Ashur in the winged disk which is represented on Assyrian seals and sculptures. The common source of Ashur-Marduk and Osiris may perhaps be sought in Syria. STURGE SMITH, *The Relation of Marduk, Ashur and Osiris* in *Journal VIII*, 41—44.

ADANA. Large black granite statuette of "the nurse Sat-snefru," found about 1882. H. E. W[ILKINSON], *An Egyptian Statuette from Asia Minor* (with figure) in *Bull. Metrop. Mus.* XVI, 208—210.

CARCHEMISH. In *Carchemish, Report on the excavations at Jerablus on behalf of the British Museum*, Part II, *The Town Defences*, Mr. WOOLLEY considers that the foundation of the city in neolithic times belonged to a different race from the Hittites. The Hittites came in with the Bronze Age when pottery was made on the wheel, not later than 1750 B.C. and probably much earlier. To them is due a ring wall round the citadel, attributed to the "Early Hittite" period. The "Middle Hittite" period saw the enclosed area vastly enlarged and much sculpture and inscription added; it lasted to about 1200 B.C. when a flood of invaders from the north overwhelmed it. The "Late Hittite" period is a term intended

to cover the whole time from the rebuilding of Carchemish to its destruction by Nebuchadnezzar in 604 B. C. Down to 1200 it had presumably been subject to the Hittite Empire centred at Pteria on the Halys. Thereafter it was independent of Asia Minor, though finally more or less subject to Assyria and Egypt. The Egyptian hold upon it was brief, beginning with Necho and ending with Apries; Mr. WOOLLEY and his companions however found clear traces of this occupation in sealings of Necho and a seal of Apries; and relics of the struggle which ended it, in a Greek bronze shield, a greave, and many bronze arrowheads, all of which seem to be exactly dated thereby to the year 604.

Kadesh (Tell Nebi Mendi). In his excavations PÉZARD has discovered a stela with a figure of Sethos I before a male divinity, *Comptes Rendus* of the Académie des Inscriptions 1921, 303.

Byblos. This important trading colony of the Egyptians on the Phoenician coast is being explored by M. MONTET for the French Government. In *Syria* II, 263—264, *Byblos et l'Égypte*, MONTET gives a brief account of the importance of the place for the trade in spruce-wood etc., and of the Egyptian remains found in and before 1919; this is all more fully stated with copies of the inscriptions of Tuthmosis III (cf. also WOOLLEY, *The Egyptian Temple at Byblos* in *Journal* VII, 200), etc., in the *Lettre de M. Montet à M. Clermont-Ganneau* in *Comptes Rendus* 1921, 158—168. His excavations began on October 20th 1921 and resulted in the discovery of fragments of alabaster vases of Mycerinus and Unis and of statues, *C. R.* pp. 332, 363, cf. *Syria* II, 333—334. According to special information from M. MONTET these objects come from the ruins of a Phoenician, not an Egyptian, temple, *Aegyptus* III, 104. [The "cylindre d'époque thinite," exhibited at the Louvre to a gathering of Egyptologists, was generally agreed to belong to a later period.]

Sidon. A cemetery of rock-cut graves at Kafr el-garrah (two hours drive to the east of Sidon) yielded pottery including a "Tell-el-Yahudieh" vase, as well as a plain amethyst scarab and a small limestone scarab engraved with Syro-Egyptian design. CONTENU, *Mission archéologique à Sidon* (1914) in *Syria* I, esp. pp. 126—129.

Megiddo. It is announced that Mr. Rockefeller has given 60,000 dollars for the excavation of this site, *Or. Lit.-Zeit.* XXIV, 279.

Askalon. According to Professor GARSTANG's report, *The Excavations at Askalon* in *Pal. Expl. F. Qu. St.* 1922, 112—119, the work has not yet reached important remains earlier than Moslem and Roman. Cf. *Syria* II, 79.

PINCHES and NEWBERRY publish *A cylindrical seal inscribed in hieroglyphic and cuneiform in the collection of the Earl of Carnarvon* in *Journal* VII, 196—199, of lapis lazuli, imperfect at both ends, inscribed with a longitudinal column of old-Babylonian characters parallel to a column of Egyptian hieroglyphic containing the name of Amenemmes I, "beloved of Hathor." Probably this may have been the Hathor of Byblos, but unhappily the break has carried away the end of this as well as of the cuneiform inscription in which only the name of the owner remains.

SAYCE, *New Light on the Early History of Bronze* in *Man* XXI, no. 97 states that according to a stela in Berlin, Sargon, a semi-independent governor of Syria under Babylonian control in A. C. 2180 conquered Egypt, which was ruled by Nubians at the time.

The report of the German Oriental Society (*Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin*) no. 61 for December 1921, is full of matter of extraordinary interest. Besides an account by ANDRAE of the earliest states of the Ishtar-temple at Assur, it contains a sketch by FÖRSTER of the languages, history, culture and religions of the Hittite Empire in Asia Minor with its numerous provinces as revealed by the tablets of Boghaz-Keui. The widowed queen of Tut'-ankh-amūn sought a husband among the sons of the Hittite king Šubbiluliumaš; one was sent to Egypt but was murdered on the way by Egyptians of high rank. Three reigns later, the battle of Kadesh was a defeat for Ramesses II at the hands of Muwatalliš; but the greatest event in the reign of the next king Hattusiliš III, and one often referred to in the Hittite correspondence, was the treaty of alliance which he made with Ramesses. The picture of the Hittite rulers and of their relations to the people is a pleasing one; of a humane disposition and very pious to the gods, they respected truth, giving credit for successes to the real authors and on occasion confessing their own errors and defeats. Earlier, in a time of Hittite weakness from 1700 to 1500 B. C., the Empire of Hanigalbat grew up, embracing the countries from Asia to Armenia, and at its culmination, mistress of all nearer Asia. The Hyksos conquest of Egypt presumably proceeded from the western or Syrian half of this Empire, of which portion Halab (Aleppo) was the capital.

BREASTED's, *The Earliest Internationalism* is reviewed by ELLIS in *Ancient Egypt* 1922, 27—28. SIDNEY SMITH argues that Kizzuwadna, a state on the sea coast and bordering on the lands of the

Hittites and the Harri of Mitanni, must have included the port of Tarsus, and probably is identical with the land named Kode by the Egyptians. *Kizzuwadna* and *Kode* in *Journal* VIII, 45—47.

In *Tarkondemos*, fasc. 1, AUTRAN illustrates the signs and words on the famous bilingual silver boss with a marvellous assemblage and comparison of words gathered from all kinds of sources.

PATON has published part I of the fourth volume of *Egyptian Records of Travel in Western Asia*, a continuation of his laborious work, dealing in minute detail with the Stela of Victory of Tuthmosis III and his great geographical lists at Karnak.

NELSON, *The Battle of Megiddo* is reviewed by KEES in *Or. Lit.-Zeit.* XXV, 348—349.

BURKE, *Some Notes on the Battle of Kadesh* in *Journal* VII, 191—195 is a criticism by an army-officer of some points in BREASTED's interpretation of the narrowly avoided disaster to the Egyptian army which Ramesses II was wont to celebrate on the walls of his temples.

AUTRAN, on philological and other grounds, learnedly upholds a theory that Phoenicia from very early times was a centre of Aegean rather than of Semitic culture. Its Semitism, which had little influence on the Greek vocabulary, dates from or after 1200 B.C., *Phéniciens*; reviewed by POTRIER in *Syria* I, 329—332. WEILL, *Sur la dissémination géographique du nom de peuple dans le monde Égéo-asiatique* in *Syria* III, 27—40 would connect together the hieroglyphic names Qerq, Qirqesh = Cilicia or perhaps Circesium, and Qerqemesh, i.e. Carchemish, and other names outside hieroglyphic records, as bearing witness to the spread of a people, and finds other groups of names in the region of Asia Minor and the Aegean. According to the same scholar, *Phéniciens, Égéens et Hellènes dans la Méditerranée primitive*, ib. II, 120—144, the early application of the Greek term Phoenicia extended to the Aegean and the north and east coasts of the Levant, its significance in the course of time tending eastward and becoming more limited. Corresponding to this vague Phoenicia of the Greeks was the name Keftiu among the Egyptians; hence the use of the hieroglyphic name Keftiu to correspond to Phoenicia in the bilingual decree of Canopus. The various names of the Peoples of the Sea are to be identified with Mysians, Dardanians, Hium (?), Cilicia, Lycians or Lycionians, Sardis, Onassios, Sagalassos or Sikels, Tarsus, Achaeans, Danai, Cretans and Teucrians. For the Peoples of the Sea and especially the Achaeans, see his communication to the *Journal Asiatique*, XI. Sér., t. XIX, 141—144. WOOLLEY, *La Phénicie et les peuples égéens* in *Syria* II, 177—194, studying the pottery, &c. of Phoenicia from specimens in the museum of the American college at Beirut, publishes several examples resembling those found occasionally as foreign importations in Egyptian tombs. He concludes that the pre-Hellenic culture of the Aegean was closely connected with that of the interior of Asia Minor (Hittite); far from Syria being a great centre of Asiatic-Minoan power between the 25th and the 12th century, as viewed by AUTRAN, the Aegean influence there was at that time feeble, while Syria was subject to Mesopotamia or to Egypt. After 1200, when the Minoan and Hittite centres were destroyed, the influence of Asia Minor or the isles began to be serious in Phoenicia, and the adventurous traders and navigators of Phoenicia became the representatives to the later Greeks of those older civilisations. See also his interesting paper, *Asia Minor, Syria and the Aegeans* in *Liverpool Annals* IX, 41—56.

PHYTHIAN-ADAMS contributes a paper on *Hittite and Trojan Allies* to *Bulletin* no. 1 of the British School of Archaeology in Jerusalem, pp. 3—7 comparing names in the Homeric catalogue with those of the confederacy against Ramesses II.

KNIGHT's *Nile and Jordan* is reviewed in *Ancient Egypt* 1921, 115, by PEET in *Liverpool Annals* IX, 57—59 and by S. A. C[OOK] in *P. E. F. Quarterly Statement* 1921, 146—147.

MALLON has brought out a work, *Les Hébreux en Égypte* (*Orientalia* no. 3) under the auspices of the Biblical Pontifical Institute, devoted to the sojourn in Egypt and the starting point of the Exodus. It is fully illustrated both from ancient monuments and literatures and from the modern life of Syria, Palestine and Egypt; and it makes use of the latest translations and discussions, among which those of Dr. GARDINER in the *Journal* are conspicuous. Reviewed by A. C[ALDERINI] in *Aegyptus* III, 242.

A. VON OW's *Joseph von Ägypten und Aseneth* is condemned as a fantastic book by MÖLLER, *Or. Lit.-Zeit.* XXV, 148—149.

MACE, *The Influence of Egypt on Hebrew Literature* in *Liverpool Annals* IX, 3—26, argues that the lyrical, didactic and prophetic literature of Egypt exercised a considerable influence on Hebrew writings.

PETRIE in a small brochure has published a lecture entitled *The Status of the Jews in Egypt* following the lines of his *Egypt and Israel*; it records the discovery of long but fragmentary Aramaic inscriptions in a tomb near Oxyrhynchus and fragments of early Hebrew papyri.

MISS ECKENSTEIN, a member of Flinders PETRIE's expedition of 1905—1906 has written *A History of Sinai* (S. P. C. K.) emphasizing the early moon-worship at the mines and placing the Mountains of the Law at Serabit el Khâdim; reviewed by ELLIS in *Ancient Egypt* 1922, 28.

BRUSTON, *Les plus vieilles inscriptions cananéennes* in *Rec. Archéologique* XIV, 49—80, discusses the ancient Sinai inscriptions as belonging to a Canaanite dialect closely allied to the Hebrew of the ancient settlers in Goshen, some of the signs being apparently borrowed from Egyptian hieroglyphs. From inscriptions found in Egypt by PETRIE and DARESSY, he concludes that the Egypto-Canaanite alphabet had two forms, but further removed from the ideographic original than that used in Sinai. BISSING, *Die Datierung der Petrieschen Sinai-Inschriften* (*Sitzungsberichte* of the Bavarian Academy, 1920, 9th Abh.) reviewed the question of the age of the inscriptions in the light of the works of PETRIE, GARDINER, SETHE, EISLER and BAUER. He considered that they dated later than 1500, being neither of the Twelfth Dynasty nor Hyksos, and some of the monuments on which they occurred clearly belonged to the New Kingdom. He saw no reason to connect them with the Kenites, nor to associate with them the inscription on a wooden peg from Kahun; reviewed by PIEPER, *Or. Lit.-Zeit.* XXV, 312—315. EISLER, *Die Kenitischen Weihinschriften der Hyksoszeit im Bergbaugebiet der Sinaihalbinsel* is reviewed by RANKE, *Or. Lit.-Zeit.* XXIV, 297—299. *Ib.* 241, SCHNEIDER, *Die neuentdeckte Sinaischrift* is inclined to place these inscriptions after Dyn. XX and not before the tenth century B. C., partly on historical grounds. In his view they were inscribed by barbaric chiefs, probably Philistines, and he begs for the publication of the Cretan cursive writing. *Ib.* XXV, 147—148, BISSING, *Offener Brief an den Herausgeber* points out that his own views in *Die Datierung* are on the same lines as SCHNEIDER's, but he now admits the possibility of squatting statues belonging to the Middle Kingdom. KALINEA also writes on the origin of alphabetic writing, *Der Ursprung der Buchstabenschrift*, *Klio* XVI, 302—317.

COWLEY, *Jewish Documents of the Time of Ezra* is reviewed by POZNANSKI in *Or. Lit.-Zeit.* XXIV, 303—305. GIBON publishes two Persian Aramaic papyri found at Saqqârah by QUIBELL in 1913 and 1917, the one giving interesting transcripts of Egyptian names, Harkhebi, Nahmesêse (?) Wahepre', Nitertais, Psammetik, etc., the other an indication of a separate Asiatic colony at Memphis, *Fragments de Papyrus araméens provenant de Memphis* in *Journal Asiatique*, XI Ser., T. XVIII, 56—64.

PILCHER (*P. E. F. Qu. St.* 1921, 139), describing a Philistine coin from Lahish, draws attention also to a remarkable theory of M. CLEMONT-GANNEAU that the trading community of Syene of the fifth and fourth centuries B. C. issued a silver coinage, imitating Athenian tetradrachms but with Phoenician inscriptions.

CLEMONT-GANNEAU's *Les Nabatéens en Égypte* is commented on in *Syria* I, 168 and *American Journal of Archaeology* XXV, 86.

Africa. VON LUSCHAN in *Zeits. f. Ethnologie* 1920/21, 427—430 prints *Die Ägypter und ihre libyschen Nachbarn*, part of a lecture given by MÖLLER shortly before his death, giving a summary of his views on the population of Libya in ancient times. The original brown Tehenu race, having many signs of affinity to the early Egyptians, were invaded from Europe (?) by the blonde Temhu at the time of the Old Kingdom, and from the south by a dark race, causing great disturbances in Africa. With the movements of the Peoples of the Sea in the reign of Merneptah new names appear, the chief being the Mashuash or Maxyes akin to the Tehenu, and the Libyans akin to the blonde Temhu. The tribal names derived by Herodotus from Cyrene can be paralleled in Egyptian inscriptions. Of modern races, the Guanches of the Canary Islands were the purest representatives of the ancient inhabitants of Libya; in embalming the body they show a remarkable parallel to Egyptian practice. MÖLLER suggests that it was in a salt tract of the Libyan desert that mummification first began to be practised and that it spread thence among the allied populations on both sides.

In *Aegyptus* III, 59—65 PATRONI writes *Ancora dei pretesi Libi biondi* and *ib.* 156—167 BARTOCCINI of the Tripoli Museum on *Quali erano i caratteri somatici degli antichi Libi?* illustrating his article from Egyptian sculpture, Roman mosaics etc.

JUNKER points out that negroid features do not appear in the general population of either Egypt or Nubia in early times, though isolated examples may exhibit them. In the Old Kingdom the dark colour of the Nubian is occasionally seen, but never the features of the negro. It is with the deeper penetration of Africa under the New Kingdom that contact with the negro was established, and their very marked features were then accepted as typical of the southerners or *nhîi*. *The first appearance of the Negroes in History* in *Journal* VII, 121—132, a translation of *Das erste Auftreten der Neger in der Geschichte* in the *Almanach* of the Vienna Academy 1920.

JUNKER, in an elaborate study of the small handled jugs etc., of black punctured ware and their allies found in Egyptian graves at Tell-el-Yahûdiê and elsewhere, also in Nubia, Palestine and Cyprus, boldly seeks their original home in the Kerma culture of Nubia, considering that they were introduced into Egypt by the Nubian soldiery of the Hyksos period. *Der nubische Ursprung der sogenannten Tell-el-Yahudiye-Vasen* (Sitzb. Vienna Acad. 1921).

CONTI ROSSINI in an article, *Egitto ed Ethiopia nei tempi antichi e nell'età di mezzo* (Aegyptus III, 1-18), notes the probable visits of the Egyptians to the coast of Abyssinia and Somaliland under the name of Punt, as well as later connexions.

The late Prof. GIUFFRIDA-RUGGERI reviews DAS, *Big-Vedic India*, and MITRA, *Prehistoric Cultures and Races of India* wherein DAS would identify Punt with India, *Punt e l'India* in Aegyptus III, 55-58.

PHILOLOGY.

MANY reviews of NAVILLE's *L'Évolution de la langue égyptienne et les langues sémitiques* have appeared. That of MEINHOF, *Zeit. f. Eingeborenen-Sprachen* XI, 73-75, is especially valuable as giving the views of an expert in African languages. He would place Egyptian in the Hamitic group, and believes that when the modern representatives of that group have been scientifically analysed and compared together, fruitful comparisons with Egyptian will be made; but as linguistic studies stand at present, he considers that the Semitic group offers the most useful working analogies for students of Egyptian. M. NAVILLE replies courteously and vigorously, *ib.* XII, 72-76. Other reviews are by GRAPOW in *Or.-Lit. Zeit.* XXV, 100-102; FARINA in Aegyptus II, 224-229; ORT in *Syria* II, 76; A. H. S[AYCE] in *J. R. As. Soc.* 1922, 132-135.

DRIOTON has written for his students at the Institut Catholique de Paris an admirable grammar, thoroughly scientific and up to date, *Cours de grammaire égyptienne* with well chosen examples and an index that serves as a glossary. His excellent autograph has unfortunately been ill-reproduced by a cheap process, no doubt to meet the times, and the result is very trying to the eyes.


MERCER's translation of RÖDER's *Short Egyptian Grammar* is reviewed by GUNN in *Journal* VII, 228; by FARINA in Aegyptus II, 363, and by WIEDEMANN in *Or.-Lit. Zeit.* XXV, 165-166.

SETHE's *Der Nominalsatz im Ägyptischen und Koptischen* is reviewed by WIEDEMANN in *Or. Lit.-Zeit.* XXIV, 159.


COHEN, following PHAETORIUS' analysis of the suffixes in the imperfect tense of Galla (more or less shared by other languages of the Cushite group) as themselves consisting of an original verbal root with prefixes and suffixes, suggests a similar origin for the endings of the "pseudo-participle;" this he offers as an alternative to the current explanation of them (due to ERMAN) according to which they were derived from the endings of the original Semitic perfect, *Sur la Forme verbale égyptienne dite "pseudo-participle"* in *Mém. de la Soc. de Linguistique de Paris* XXII, 242-246.

GARDINER derives the relative forms of the verb from a passive participle, *The Relative form in Egyptian in the light of comparative syntax* in *Philologica* I (1921), 1-14.

NAVILLE studies some uses of the auxiliary *yr* "do," *Études Grammaticales* IV, in *Rec. de Trav.* XXXIX 1-10.

JÉQUIER has many ingenious remarks on words beginning with *m* which he treats as identical with the well-known preposition, *Le préfixe  dans les noms d'objets du Moyen Empire* in *Rec. de Trav.* XXXIX, 145-154.

BARENTON's *La Langue étrusque dialecte de l'ancien Égyptien* is reviewed unfavourably by HERBIS, *Or. Lit.-Zeit.* XXIV, 157, and condemned by FARINA. "It is clear that (the author) knows neither Egyptian nor Etruscan," Aegyptus II, 363.

MÖLLER points out that the sign , an oval basin containing the water line, used for the name of Ammon from the time of the Libyan dynasties onwards, represents the Berber word *amân*, "water" which coincides with the pronunciation of the name of the Egyptian god at the period; he notes several words in Libyan and Egyptian of common origin, and some that are borrowed in later times by Egyptian from Libyan. *Ägyptisch-Libysches* in *Or. Lit.-Zeit.* XXIV, 193-197.

Meroitic. MEINHOF reviews the work that has been done; he considers that Meroitic cannot be classed with Nubian and looks to the Eastern Hamitic languages for its illustration, especially those of Abyssinia, *Die Sprache von Meroë* in *Zeit. f. Eingeborenen-Sprachen* XII, 1-16.

The preparation of the MS. of the Berlin *Wörterbuch* has reached *ss*. To save expense, texts not yet brought in to the collections are being utilised in extracts instead of *en bloc* as hitherto, ERMAN, *Wörterbuch der ägyptischen Sprache* in Berlin Acad. *Sitzb.* 1922, pp. XLVII—XLVIII.

ERMANN and GRAPOW, the ultimate editors of the *Wörterbuch* have issued a small *Ägyptisches Handwörterbuch* at a very moderate price, containing most of the common words in use down to the end of the New Kingdom; reviewed by GARDINER, *Journal* VIII, 109—110.

GRAPOW gives an extensive report of BUDGE, *An Egyptian Hieroglyphic Dictionary* of which "only one copy exists in Germany," *Or. Lit. Zeit.* XXV, 203—209.

MÖLLER reviews LEXIA, *Beiträge zum demotischen Wörterbuche aus dem Papyrus Insinger* (1916), and makes a gentle protest against transcribing demotic into hieroglyphs, *Or. Lit. Zeit.* XXV, 149—150.

SPIEGELBERG's *Koptisches Handwörterbuch* is valuable not only as a scientific index and supplement to PEYRON's *Lexicon Copticum* but also as a rich collection of Egyptian origins for Coptic words. DÉVAUD traces many Egyptian words into Coptic—*ury.t* "hoe," *'is* "sneeze," *d.t* "viper," *ht.t* "arm-pit," *ikdw* "mason," *'n.t* "adze," *mr* or *mi* "excrement," *mrne* "must of wine," *mdh.t* "mortar for pounding," *psb* "sting," *shb*, *shp*, "drink," "swallow," also meaning "plunge (?)." *Etymologies Coptes* in *Rec. de Trav.* XXXIX, 155—177.

GUNN writes on *The Egyptian word for "short,"* i. e. *hw'*, in *Rec. de Trav.* XXXIX, 101—104, "To have recourse to" in Egyptian, i. e. *'in.t m*, *ib.* 105—107 and *A Note on the Verb wrš*, in the special sense "spend all one's time (doing)," *ib.* 108—109.

New readings of two words, *rthi*, *rthw* "baker" and *st* "white (?)" Nubian earth," both hitherto read *hnt*. DÉVAUD, *Deux mots mal lus* in *Rec. de Trav.* XXXIX, 20—24.

New instances of *mān* "harpooner," SETHE, *Miszellen* in *Zeit. f. Äg. Spr.* LVII, 137—138.


SETHE gives a list of shortened names ending in *y* dating from the Old Kingdom, corresponding to the New Kingdom forms discussed by him previously. The abbreviation consists largely in the omission of a divine or royal name; thus, both *Khemhotpe* and *Sobk-hotpe* may be shortened to *Hepy*, *Kurznamen auf j* in *Zeit. f. Äg. Spr.* LVII, 77—78.


WORMS proposes to read as Herkhufui "Horus protects me" the name usually read Herkhuf, *Journal Asiatique* XI Sér., XIX, 94—95, and *ib.* 136—137 even proposes to interpret Amenhotp, Ahmosi similarly.

JÉQUIER studies some passages in the Story of Sinuhe, *Notes et Remarques* in *Rec. de Trav.* XXXIX, 15—19.

SOTTAS discusses philologically at great length an interesting expression used in the demotic of the Canopus tablet for "not only . . . but also," which seems to be rather violently invented to translate the Greek phraseology, "*Non solum . . . sed etiam*" in *Égyptien* in *Cinquantenaire de l'école pratique des Hautes Études* 9—24.

PALAEOGRAPHY.

Early forms of the hieroglyph for "night" (chiefly from the Pyramids, which are not a first rate source), prove that the object hanging from the  sky (or detached from it) is a steering paddle; the change in form to a pendant star is not seen till late in Dyn. XIX. The ultimate conclusion is that to the Egyptians the idea of night was the falling of the sky on to the earth; at least, it is clear that the history of the sign gives no support to the deduction that the stars were hung from the sky by strings. MARIE CHATELET, *Une des causes de l'obscurité nocturne d'après les idées des plus anciens Égyptiens* in *Bull. de l'Inst. Fr.* XVIII, 21—31.

The supposed occurrence of  on a prehistoric vase is not correct, BISSINO, *Miszellen* in *Zeits. f. Äg. Spr.* LVII, 137.



reads *'b*, not *i'b*, SETHE, *ib.* 137.

WIESMANN studies exhaustively the use of the determinatives of the speaking (or eating) man and of the papyrus roll in the Pyramid Texts, showing their restricted employment in this early writing, *Die Determinative des sprechenden Mannes und der Buchrolle in den Pyramidentexten* in *Zeits. f. Äg. Spr.* LVII, 73—77.

SETHE notes that in the long inscriptions on the statue of Zeho-p-shed from Athribis the sign of the goose or duck is used for "and," "with," probably representing the Egyptian word *hn'*, *Miszellen* *ib.* 159.

RELIGION.

Articles relating to Egypt in HASTING'S *Encyclopaedia of Religion and Ethics*, vol. XII (reaching the end of the alphabet) are *Transmigration* (Egyptian) by PETRIE on pp. 431-432, and *Worship* (Egyptian) on pp. 776-782 by BLACKMAN, who divides his article under four heads:—1. The Daily Temple Liturgy, (a long account). 2. Private Worship. 3. Unusual popular conceptions of Worship. 4. The Aton Cult of Amenophis IV.

KUNKE's article, *Zur Deutung der ägyptischen Götter vom Standpunkt der vergleichenden Mythologie* in the *Intern. Archiv f. Ethnogr.* XXIV is reviewed by ZELTZER in *L'Anthropologie* XXXI, 379-380.

Recent portions of PAULY-WISSOWA'S *Realencyclopädie d. klass. Altertums* contain very full articles by ROEDER on *Sarapis* (33 columns) and *Satis* (goddess of Elephantine, 13 columns).

ROSCHER'S *Ausführliches Lexicon d. Gr. u. Röm. Mythologie*, Lief. 80-81 completes the article on *Thoth*; the name and cult are treated by PIETSCHEMANN, but the remainder is supplied by ROEDER in 22 columns on the nature, mythology &c. of the god, basing his work on the collections made by PIETSCHEMANN. A long article on the goddess *Thueris* (30 columns) is entirely by ROEDER.

Professor BOYLAN of Dublin has written an important monograph on *Thoth, the Hermes of Egypt, a Study of some aspects of theological Thought in Ancient Egypt*; the book is without illustrations but is based on very full material. There is a good review of it by KRES in *Or. Lit.-Zeit.* XXV, 347-348.

RUSCH traces from the Pyramid Texts onwards the way in which Nut, a sky goddess, one of whose functions was to protect the dead king and receive him as a star into her bosom, naturally developed much further her funerary character. In the later renderings of early texts were introduced curious perversions of orthography, words and ideas. Painted on the lid of the coffin, the goddess becomes identified with the lid; she becomes a general protectress of the dead and takes to herself the functions of other goddesses of this nature; from Hathor she derives her well known connexion with the sycamore in which she provides food and drink. *Die Entwicklung der Himmelsgöttin Nut zu einer Totengottheit*, (*Mit. d. Vorderas. Ges.* 1922, 1).

WIEDEMANN notes instances of connection or identification of certain planets and stars with particular deities, *Zum altägyptischen Sternglauben* in *Archiv f. Religionswissenschaft* XX, 230-232.

SCHARFF has published translations of the principal hymns to the Sun, with introduction, notes and interesting illustrations, *Ägyptischer Sonnenlieder*.

The idea that the land traversed by the stars after setting is a world turned upside down occurs in Ch. XCIX of the Book of the Dead. A different notion, a subterranean world in the form of an immense tunnel, avoided the necessity of standing upside down demanded by the other, JÉQUIER, *Le Monde à l'envers et le monde souterrain* in *Rec. de Trav.* XXXIX, 97-100.

GUNN discovers in the Pyramid Texts an allusion to the strange finger-numbering test of the deceased which was published by GRAPOW from Middle Kingdom coffins and discussed by SETHE, "Finger-numbering" in the *Pyramid Texts* in *Zeit. f. Äg. Spr.* LVII, 71-72.

SPIEGELBERG points out that the two decrees of Ammon in favour of Pinotem and his deceased wife Eskhons, were mainly intended to safeguard the former and his family against the possible ill influences of his wife's ghost. *Das wahre Motiv des zugunsten der Prinzessin Nes-Chons erlassenen Dekretes des Gottes Amon* in *Zeit. f. Äg. Spr.* LVII, 149-151.

KRES writes a long article on the peculiar stelae, rounded above and tapering downwards, seen in hieroglyphic and other figures of the shrines of the kingdoms of Upper and Lower Egypt. In the most detailed examples in early times, and commonly in the late period, they have a figure of a uraeus upon each; they form a pair before the temple and represent the protecting genii. The words in which they occur are *senut* "house of the pair" and *yrtty* "the two shrines;" the former seems more particularly to be the "house of the pair of snake stones," "the snake house." Besides Re' the sun god of Heliopolis, Min was especially connected with the "snake house," and his temples at Ekhnim and Coptos were both named *senut*. *Die Schlangensteine und ihre Beziehungen zu den Reichsteiligtümern* in *Zeit. f. Äg. Spr.* LVII, 120-136.

The daily rebirth of the sun from the solar waters gave rise to a ceremonial practice of daily washing at Heliopolis which spread thence over Egypt both in temple and funerary ritual, for the rebirth of the living king and of the dead man. Another influence, the Osirian idea of restoration of life by water (libations and washings) mingled with this solar doctrine as early as the Pyramid Texts. BLACKMAN, *Sacramental Ideas and Usages in Ancient Egypt* in *Rec. de Trav.* XXXIX, 44-78. The long paper

with many translations especially expounds the Osirian water doctrine and its combination with the solar doctrine.

"Power," "Power of God" appears both in singular and plural as a kind of "genius" in demotic literature and in names of persons in the New Kingdom in the Hellenistic period. It can be traced back to the New Kingdom in the *Nekht*, commonly translated "Giant" of the Story of the Doomed Prince, as well as in a single proper name. This "Power" apparently represents an abstract divinity like *Sia*, "understanding," and *Me'it*, "Truth." SPIEGELBERG, *Die ägyptische Gottheit der Gotteskraft in Zeit. f. Äg. Spr.* LVII, 145—148.

PREISIGKE has followed up his paper, *Vom göttlichen Fluidum nach ägyptischer Anschauung* in which he held that the *ka* was the divine essence and power which exists also in man and can be communicated like the electric fluid, by another in which he traces similar ideas among the early Christians, *Die Gotteskraft der frühchristlichen Zeit* (Pap.-Inst. Heidelberg, Schr. 6).

HOFMEIER's large work, *Griechisch-Ägyptischer Offenbarungszauber*, Bd. I (in WESSELY's *Studien z. Papyrographie und Papyruskunde*) concerns the Greek papyrologist and the student of Hellenistic magic more than the Egyptologist; but it is important to him also in connexion with the demotic papyrus of London and Leiden which dates from the third century A. D. and it occasionally reflects light on the older magical literature.

MISS MURRAY points out that the Nawruz, or day of high Nile, and the 'Id es-Salib or Festival of the Cross, which was celebrated seventeen days after the Nawruz according to Mahrizi, correspond to the ancient pagan festivals of the New Year's Day and the *wag* respectively, and remarks on other interesting details concerning the Nile festival, *Nawruz or the Coptic New Year in Ancient Egypt* 1921, 79—81. MISS MURRAY also ingeniously connects the name of Tarabo with that of the goddess Triphis in describing *The Ceremony of Anba Tarabo* against dog-bite, *ib.* 1921, 110—114.

MISS BLACKMAN writes on *Some Modern Egyptian Graveside Ceremonies*, Coptic and Muhammedan, observed at Meir, with suggestive ancient parallels, in *Discovery* II, 207—212.

THOMAS illustrates LEBRAIN's theory that the will of a god was indicated by the varying weight of the divine image upon its bearers, *Oracular Responses in Ancient Egypt* 1921, 76—78.

SETHE obtains evidence from an imperfectly published demotic document in the Louvre, that in the Ptolemaic age persons were indeed "shut up" in the Serapeum of Memphis for a religious purpose to serve the divinity, and not by way of imprisonment for misdemeanours. *Ein bisher unbeachtetes Dokument zur Frage nach dem Wesen der $\pi\alpha\rho\alpha\chi\eta$ im Serapeum von Memphis* (Pap.-Inst. Heidelberg, Schr. 2), reviewed by WIDEMANN in *Or. Lit.-Zeit.* XXV, 247—248.

SCIENCE.

A medical papyrus belonging to the New York Historical Society of which rumours have been afloat for some time past, proves to be of quite unusual importance in the history of science. Professor BREASTED is preparing to edit it and his preliminary account shows that though now but a fragment it had contained the beginning of a systematic treatise on surgery and external medicine which was written under the Old Kingdom although the copy is of the end of the Middle Kingdom. This is the first text on human surgery found in Egypt. The author arranged his cases according to the part affected in order from the top of the head downwards; some are judged to be beyond effective treatment and others doubtful, and the treatment prescribed is simple and almost absolutely free from magic. The descriptions of the injuries sometimes go into details that interested the investigators without being essential to the proposed cure, displaying in fact a spirit of scientific enquiry such as is seldom discoverable in ancient writings, though it must have inspired the great inventors of the early world. The "Edwin Smith Papyrus" thus contrasts with all the medical papyri hitherto known, whether they consist of absurd spells and magic or of a mixture of half-reasonable prescriptions with magical formulae. It was obtained at Thebes in 1862 by an American long resident there, who is now revealed as an intelligent student of hieroglyphic and hieratic; who, however, like the late Mr. WILBOUR, hid his candle under a bushel. He was born a hundred years ago, in the year of CHAMPOLLION's great discovery, and the Society appropriately dedicates to the memory of the decipherer this preliminary account of SMITH's greatest treasure, now in its possession. New York Historical Society, *Quarterly Bulletin* VI, (April 1922) 3—31.

Dr. (Sir Armand) RUFFER was a pioneer in the pathological examination of ancient skeletons and mummies, and actually invented the term "palaeopathology" for this branch of research. In a volume

entitled *Studies in the Palaeopathology of Egypt* are collected his papers touching on the subject, the dates extending from 1909 to 1920. They make a very substantial volume illustrated with plates in colour and in outline as well as photographs, and often contain matter of importance to Egyptologists. In a chapter, hitherto unpublished, on Ancient Egyptian teeth of many ages including those of Alexandrians, Greeks and Meroitic Nubians, he draws attention to the absence of evidence of dental operations even in cases which could have been easily relieved. Dwarfs, but not pygmies, are figured on the Egyptian monuments. A short biography and a bibliography of RUFER's printed works are included.

GRIFFITH-RUGGERI in a paper entitled *Appunti di etnologia egiziana in Aegyptus II*, 179-189, argues that:—(1) Egyptian representations of Hittites point to artificial deformation of the skull, a practice which has been shown to have existed in Asia Minor by skulls found there, and is testified to by Hippocratic tradition. On the other hand, the Tell-el-Amarna reliefs seem to represent a mere convention in art, perhaps stimulated by such practices amongst the foreigners in Egypt. (2) Libyans in the Fifth Dynasty are represented as of the same colour as the Egyptians, while in the Nineteenth and Twentieth Dynasties they are blonde with fair hair and blue eyes; he is inclined to connect this with the movement of Nordic people southwards, but it is difficult to put that movement so early. (3) Phut and the Egyptian Punt might be the Asiatic portion of the Indo-Africans while Cush was the African portion. Mitra would identify the primitive Todas with the Phut race, and Hatsheput's 'anti' trees from Punt with the sandal-wood of India; but the representations of the 'anti' tree preclude the identification with sandal-wood and it must in reality be a kind of *Boswellia* or incense-tree.

In *Archiv für Bienenkunde* III, Heft 1-2 are articles on the Egyptian bee by RUFER, GOUGH, von BUFFEL-REEPEN and ARMERUSTER. The Egyptian bee, *Apis mellifica*, var. *fasciata*, has been the subject of experiment in Germany and of observation in Egypt. It does little work in winter and in the hottest hours of the summer, whereas the Italian race, introduced into Egypt, is "busy" all the time; its output of honey is therefore comparatively small. The bees are kept in cylindrical pots from which the honey is extracted very often, after fumigation with bars of cow-dung. The Egyptian bee is very small and bright, its yellowish colour agreeing with the monumental insect, the symbol of the king of Lower Egypt. A scene of bee-keeping, fumigating and potting the honey is recognised by von BUFFEL-REEPEN among the sculptures of the Sun temple of Ne-user-re' of the Fifth Dynasty, and Frau KLEIN in her forthcoming *Malereien und Reliefs des Mittleren Reiches* will deal further with the subject. Reviewed by WRESINSKI in *Or. Lit.-Zeit.* XXV, 148.

In *Ancient Egypt* 1921, 104-109; 1922, 1-8 BRUDSING writes on the *Tree of the Herakleopolite Nome*. It is not to be read n'r, and it is neither the *Nerium* (oleander) nor the pomegranate, but is the same as the am-palm of the monuments, identical with the *Baphia* or wine-palm. A vegetable figure which is generally interpreted as a lettuce is here assigned to the palm-cabbage, i.e. the tender and juicy shoots of palm leaves.

In a dissertation, *Zur Astrognosie der Alten Ägypter*, Fräulein BIEGEL studies from the standpoint of an astronomer the peculiar Egyptian system of constellations, which differs markedly from the widespread "Babylonian" system. Confining her examination to the constellations of the northern sky depicted in the tomb of Sethos I and on later monuments, she draws a figure of this part of the heavens as it was in 1300 B.C. and compares the positions of the stars grouped in the Egyptian representations round the Great Bear *Meshtiu*.

BORCHARDT has written a very important monograph on the measurement of time by the ancient Egyptians, *Altägyptische Zeitmessung* (1920), a volume in BASSERMANN-JORDAN's *Die Geschichte der Zeitmessung und der Uhren*. The only subdivisions of the day were the twelve hours, the smaller divisions now in use, minutes, seconds, &c., not being recognised; thus the Egyptians required instruments only for the measurement of the hours. For this purpose they used water-clocks and sun-clocks. Of the former a fine example as early as Amenophis III exists in the Cairo Museum. It is designed for the measurement of the twelve hours of the night, between twilight and dawn in the different months of the year. Later ones of the Hellenistic period are of the same pattern, but chiefly for the night from sunset to sunrise and some are arranged for the Alexandrine and Julian years. The instrument did not make sufficient allowance for change of pressure, so that the resulting time would be very inexact. These were all clocks worked by the lowering of the water-level through outflow; one Hellenistic example, however, exists of a vessel marked similarly for filling by water dripping into it. The dedicatory model of a water-clock with a seated ape seems to occur in scenes from the New Kingdom onwards.

Next come sun-clocks. The hours could be marked by the length of the shadow thrown on a horizontal face by a vertical cubit rod (cubit rods exist marked with tables of shadow-lengths for different months);

clocks were made for measuring the shadows thrown by a gnomon on either a horizontal bar; a sloping surface, or a stepped surface; others, like dials, are read by the direction of the shadow on a vertical surface, the earliest example being a small pocket clock of the time of Merneptah from Gezer in South Palestine.

Finally there are star-clocks for determining the hours of the night by means of a star table and two observers, used probably in conjunction with the water-clock.

BORCHARDT here also publishes a very interesting fragment of the biography of a certain Amenemhat from a Theban tomb, now destroyed, of which a copy by GOLÉNISCHEFF fortunately survives; it has been identified by SETHE as recording the invention of an improved kind of "Auslauf" (draining) water-clock in the reign of Amenophis I; this inventor claims to have established the differences in the length of the night in the various seasons, and to have demonstrated these measurements in his clock by a series of monthly scales.

All these forms of clock, however, were inaccurate, and each through a different fault; the results, therefore, disagreed patently among themselves, but the Egyptians seem to have been unable to make the necessary corrections. BORCHARDT's work is reviewed by KAUFMANN in *Or. Lit.-Zeit.* XXV, 307—308.

From a review by BILABEL, *Or. Lit.-Zeit.* XXV, 247 I learn of a popular account (in 24 pages) of the astronomical and mathematical theories concerning the Great Pyramid, exposing their absurdity in most cases. HEIN, *Das Geheimnis der großen Pyramide*.

CHASSINAT endeavours to fix the nature of the *ḥt* metal standard of value which was in use as early as Dyn. IV and appears to have been resorted to when the Government intervened in a transaction. After the valuation in *ḥt* had been settled, a corresponding payment might be made either in metal or in goods. *Un type d'éalon monétaire sous l'Ancien Empire* in *Rec. de Trav.* XXXIX, 79—88.

LITERATURE.

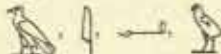
GHAPOW's *Vergleiche und andere bildliche Ausdrücke im Ägyptischen* is reviewed by PIEFER, *Or. Lit.-Zeit.* XXIV, 254.

ERMAN is about to publish a paper on the Proverbs of Ptahhotp, distinguishing an earlier and a later redaction, both of which are represented in papyri of the Middle Kingdom. *Sitzb. Berlin Academy*, 1922, 91.

FABINA has printed a translation of the Story of Sinuhe, with bibliography, *Le Avventure di Sinuhe, Racconto di trentanove secoli fa* in *Supplementi ad "Aegyptus," Serie di divulgazione*.

SPIEGELBERG's remarks, *Herodot's Charakteristik der ägyptischen Schrift* in *Hermes* LVI, 434 will help to remove the traditional interpretation, hardly to be defended even grammatically and quite meaningless, of a well known passage in Herodotus II, 36 which should run:—"The Greeks write and calculate moving the hand from left to right (ἰσὶ τὰ δεξιὰ), the Egyptians from right to left (ἰσὶ τὰ ἀρι.); and though they do this they assert that they do it dexterously (right-handedly, ἰσὶ δεξιὰ) and the Greeks clumsily (left-handedly, ἰσὶ ἀριστερά)—a jesting play on words not quite to be preserved in translation.

ERIKENBERG discusses Herodotus' description of the shape of Egypt and of Upper Egypt (where the stated breadth of 200 stadia is of course wrong, but the point of enlargement is correct if a day's sail be taken at 40 km.) and the expression "gift of the river," which is clearly applied by Herodotus only to the northern end below Moeris but is misapplied by later classical and many modern writers to the whole country. *Zu Herodot* in *Klio* XVI, 318—331.

EISLER offers a new interpretation of the difficult passage in Plato's *Philebus* (18b) wherein the alphabet, invented perhaps by "Theuth," is represented as consisting of certain numbers of vowels, sonant consonants, and true consonants; the vowels here form the *desmos* bond or common measure in the arithmetical progression between the three classes 4, 8 and 12; making together the complete alphabet of 24 letters. This "complete alphabet" is now recognisable as the basal alphabet in hieroglyphic which may be divided actually into four 'vowels,' viz:  (compare their peculiar use for

vowels in the Greek period), eight sonants, m, n, r, l, s, h, z, t, d, twelve consonants, b, p, f, k, g, q, j, k, g, t, d. *Platon und das ägyptische Alphabet* in *Archiv f. Gesch. d. Phil.* XXXIV, Heft 1, 2.

CHASSINAT explains or illustrates from Egyptian sources Plutarch's description of Harpocrates, his statement that a fish signifies to hate, Typhon's allegation of illegitimacy against Horus, Horus' fury against his mother for allowing Typhon to escape, Horus as castrator of Typhon, and the yearly sacrifice of a pig, *Sur quelques passages du de Iside et Osiride de Plutarque* in *Rec. de Trav.* XXXIX, 89—94.

CAPART points out in the formally arranged combat between Horus and Seth, nephew and uncle, referred to clearly in ch. XVII of the Book of the Dead, a striking parallel to that between Renart and Isengrin, again uncle and nephew, *Un Mythe Égyptien dans le Roman de Renart?* in *Comptes Rendus de l'Acad. des Inscr.* 1921, 113—118.

LAW.

Notes on the famous stela of the sale of a house found by the Gate of the temple of Chephren, BISSING, *Ein Hauskauf im IV. Jahrtausend vor Chr.* (Bavarian Acad. *Sitzb.* 1920, 14. Abh., pp. 1—10).

SETHÉ UND PARTSCH, *Demotische Urkunden zum ägyptischen Bürgerschaftsrechte*, reviewed by WIEDEMANN, *Or. Lit.-Zeit.* XXV, 311—312.

ARCHAEOLOGY.

BLANCKENHORN, the well known geologist, in a semi-popular publication describes the earlier palaeolithic ages in Palestine, Egypt, etc., with references to the chief authorities, *Die Steinzeit Palästinas, Syriens und Nordafrikas*, I. Teil (*Das Land der Bibel* III, 5).

SELIGMAN writes on *The Older Palaeolithic Age in Egypt* in *Journal Roy. Anth. Inst.* LI, 115—144. His paper, with many illustrations, is largely based on specimens collected by himself at Abydos, Thebes &c., together with some especially valuable groups gathered by G. W. MURRAY from sites untouched by dealers and "collectors." Some important examples are from stratified gravels, but the bulk are surface specimens. MURRAY's discoveries prove that once the Eastern desert, at any rate, was more habitable and productive of vegetation than at the present day, as against BRADNELL's important observations, which make one hesitate to accept the theory of wide-spread forests and plentiful rain. The specimens observed belong to river-drift (Chellean) Mousterian and Capsian (Aurignacian) types, with some special peculiarities. Some rude spear or arrowheads are Mousterian, and there are no Solutrian or Magdalenian forms from the high desert and its terraces. All may be found on the desert surface patinated in a series of colour-shades which are useful in determining their relative ages. Mousterian types not so patinated have been found *in situ* in undisturbed pleistocene gravels, and such with a few older have been picked up in the unpatinated state from gravel-cliffs out of which they must have been weathered in recent times. Their truly palaeolithic age seems therefore well established, though the evidence of bones as yet is entirely wanting.

VIGNARD describes a new category of palaeolithic implements for Egypt, consisting of graters, scrapers, axes, etc., of which he figures many, and attributes them to the Aurignacian period or type. The site is within the present valley of the Nile on the edge of the cultivation, and therefore they belong to a time when, according to the usual theory, the Nile had already shrunk to about its present limits, *Une station aurignacienne à Nag-Hamadi* in *Bull. de l'Inst. Fr.* XVIII, 1—20. In the same neighbourhood he has found sites where Mousterian implements are lying with earlier ones, and other sites where the two classes are entirely separate, proving their independence. They can also be distinguished by their colour, the raw material of the Acheulian-Chellean having been picked up on the surface still fresh, while in the time of the Mousterian people this surface material was no longer suitable for working, having changed its consistency through exposure. The different types are minutely described and figured, the Mousterian types differing considerably from those of France; and the routes by which these peoples may have reached Africa and the Nile Valley are considered. *Stations Paléolithiques de la carrière d'Abou el-Nour près de Nag-Hamadi (Haute Égypte)*, ib. XX, 89—109, with nineteen plates and two maps.

PETRIE writes on *Egyptian Palaeoliths*, illustrating colliths from pre-Chellean gravel on the northern outskirts of Cairo, and late Mousterian flints from very ancient Nile deposit near Lahun, with remarks on the stages of the palaeolithic types, *Man* (Sept. 1921), XXI, no. 78.

MISS CATON-THOMPSON's *Notes and Catalogue of Flint Implements from Abydos and Helwan* was issued as a guide to part of Professor PETRIE's annual Exhibition at University College, London.

J. DE MORGAN describes and figures unusual types of implements collected in Egypt by his brother HENRI, and now in the museum of St. Germain, *Notes d'Archéologie Préhistorique V, Sur quelques formes curieuses des instruments de pierre égyptiens* in *L'Anthropologie* XXXI, 52—65.

JÉQUIER has given a first instalment of *Matériaux pour servir à l'établissement d'un Dictionnaire d'Archéologie égyptienne*. This is a selection from the articles intended for a dictionary which has now become impracticable. The articles here treated range from *â* to *Amethyate*, the headings being provided partly by the French names of the subjects, partly by transcriptions of hieroglyphic words; these include

the names of various parts of a chariot, of birds, beasts and fishes, plants and minerals; and other headings include *Accouchement* and *Acrobatic*. *Bull. de l'Inst. Fr.*, XIX, fasc. 1.

PETRIE has published a *Corpus of Prehistoric Pottery and Palettes* with fifty-one plates of pottery types, and eight of types of slate palettes, which should be very useful to the excavator in the field. The slates are classified for the first time; the pottery for the most part retains its old numbering but there are some changes.

CAPART has published a valuable and judicious collection of 200 plates illustrating Egyptian architecture, with select bibliography to each, at a very moderate price. *L'Art Égyptien, I, L'Architecture*. It is on the same lines as his earlier *L'Art Égyptien* and will serve to illustrate and complete his *Leçons sur L'Art Égyptien* published in 1920.

SCHÄFER figures 21 portrait-heads of different periods with a brief account of the characteristics and limitations of Egyptian art, *Das Bildnis im Alten Ägypten*.

JÉQUIER classifies and discusses the objects represented on Middle Kingdom coffins with their names, his materials being derived chiefly from the large number of coffins already published (about 16 dating from the end of the Old Kingdom, and 72 from the Middle Kingdom, to which JÉQUIER adds only three new ones). *Les Frises d'objets des Sarcophages du Moyen Empire (Mém. de l'Inst. Fr. d'Arch. Or. XLVII)*. This is the first systematic treatment of the kind and, apart from the convenient arrangement of so much material, marks a considerable advance in the interpretation of the figures.

CURT SACHS, a high authority on the history of music in ancient times and among primitive races, has prepared a catalogue issued by the Berlin Museum of their Egyptian collection, with illuminating introductions, *Die Musikinstrumente des Alten Ägyptens (St. Mus. z. Berlin, Mitt. aus der äg. Sammlung, Band III)*. His small *Altägyptische Musikinstrumente* in the series *Der Alte Orient* is reviewed by PIEPER in *Or. Lit.-Zeit.* XXV, 21. A popular sketch by SACHS of ancient Egyptian music, *Musik in Ägypten*, as one of a series by authorities on Oriental music, is contained in pp. 295—300 of *Der Auftakt*, published at Prague.

In various journals the following articles on archaeological subjects occur:—

Journal of Egyptian Archaeology VII, 113—120; BORKH, *On two statuettes in the Louvre Museum*, fine wooden figures holding standards with animal-heads; if, as appears probable, they represent *sdm'-ash* officials, these must have been of considerable rank, probably serving in the funerary temples of the kings at Thebes. VII, 154—168, MACKAY, *The cutting and preparation of Tomb-chapels in the Theban necropolis*, from more or less unfinished tombs recovers in detail the methods of excavation, the chiselling-down of the walls to an even face, repairs of faulty rock, coating with mud plaster or stucco and preparation of the surface, and the final decoration by paint or sculpture. VII, 186—190, CAPART, *The name of the scribe of the Louvre*, brilliantly recovers the true history of two celebrated statues from the records of MARIETTE's excavations and other evidence; showing that the nameless squatting scribe was found with that named Kay, the two together forming a pair of representations, respectively squatting and enthroned, of one individual, precisely analogous to an unnamed pair of statues in the Cairo Museum. VII, 221, Note of Professor PETRIE confirming his statement of the use of shadow and high light in the picture of the Tell-el-Amarna princesses. VII, 222—228, Long and important review of SCHÄFER's *Von ägyptischer Kunst* by DAVIES. VIII, 1—4, LEECH, *Alabaster cases of the New Kingdom from Sinai*, lotus cups and figure vases in the Ashmolean Museum made up from fragments found by PETRIE in 1906. VIII, 13—15, MACK, *A group of Scarabs found at Lisht*, royal and official of the later Middle Kingdom from the neighbourhood of the pyramid of Amenemmes I. VIII, 107, BOESER's *Mumiensürge des Neuen Reiches* IV (Leiden Museum XI), reviewed by GRIFFITH.

Ancient Egypt 1921, 97—101, H. LANG ROTH, *Models of Egyptian Looms*, publishes and comments on two photographs of a wonderful model of flax-spinners and weavers at work (discovered by WINLOCK and BURTON at Thebes, and now in the Cairo Museum), illustrating it by a scene at El-Bersha; Mrs. CROWFOOT too, illustrates it from modern cotton spinning and weaving in the Egyptian Sudan. 1922, 14—19, Miss MURRAY, *Knots*, makes the illuminating observation that knots are never figured in the Old Kingdom, but in the Middle Kingdom, owing to the breaking down of some prejudice, there is a tendency towards their accurate representation. 1922, 28, ELLIS reviews RADCLIFFE's *Fishing from the earliest times*.

Discovery III, 35—40, BLACKMAN, *A new chapter in the History of Egyptian Art* (illustrated). The vigorous naturalistic style of the Meir tomb-sculpture in the Twelfth Dynasty ended in a preciousness with thin-waisted effeminate figures of men; suggests that the Tell-el-Amarna style is an exaggerated development of the latter by the local school.

Metropolitan Museum (New York) *Bulletin* XVII, 169—173. H. E. W[ILLOCK], *A gift of Egyptian antiquities*. An interesting notice of the gift by E. S. HARKNESS of Tell el-Amarna antiquities from the Amherst collection, and of a supposed group of objects purchased elsewhere comprising a lotus-goblet of Amenhotp IV, a fayence jar of the same king under the name of Akhenaton, and a massive gold ring of Tut'-ankh-amūn.

Boston Museum of Fine Arts Bulletin XX, 25—27, A. S., *Recent acquisitions from Egypt*. Since the arrival in 1921 of all the antiquities obtained in the war period, the Primitive Room and the Old Empire Room have been rearranged and opened, containing many new objects of the highest interest from the pyramids and mastabas of Gizeh, including the statues of Mycerinus. Several remarkable pieces are figured, among them a false door from which the owner issues in full face.

Recueil de Travaux XXXIX, 11—19, JÉQUIER, *Notes et Remarques*. Three "altars" of the Old Kingdom are really luxurious models of corn-grinders. The *nemes*-headdress of sphinxes etc. was intended to cover the hair lappets (like those of the Nile figures of Tanis) customary in very ancient times.

Berliner Museum. Berichte aus den Preussischen Kunstsammlungen XLII, 127—132, SCHARFF, *Ägyptische Handspiegel*, the metal mirror, shown perhaps as early as Dyn. II but little represented in the Old Kingdom, is abundant from the Middle Kingdom onwards when the water-mirror was still in use.

Zeitschrift für Ägyptische Sprache LVII, 79—86, VON BISSING, *Ein Kultbild des Hermes-Thot*, a Roman marble group in Greek style from Egypt of a baboon seated reading on a pillar (in front of which is sculptured an ibis) with Hermes (broken away); "learned" apes are unknown in early Egypt but were cultivated in Hellenistic days. 87—88, MISS MOGENSEN, *Ein altägyptischer Boxkampf*, Romano-Egyptian terracotta in the Ny Carlsberg Glyptothek, a boxing match between cat and mouse with eagle as umpire.

Orientalistische Literaturzeitung XXIV, 160—162, review of KEES, *Studien zur ägyptischen Provinzialkunst* by WRESZINSKI. XXIV, 202—207, reviewing LÜBKE, *Die Kunst des Altertums*, PIEPER writes a long critique of the section on Egyptian art. XXIV, 254—256, review of RANKE, *Das altägyptische Schlangenspiel* by WIEDEMANN. XXIV, 256—257, reviewing FECHHEIMER, *Kleinplastik*, SCHUBART asks for more distinctive classification dividing small and large-scale design in sculpture. XXV, 301—304, review of LEHNERT, *Geschichte des Kunstgewerbes I* (a small illustrated work) by PIEPER. XXV, 315—316, review of KENDRICK, *Catalogue of Textiles from Burying-grounds in Egypt I, Graeco-Roman Period* by ABEL.

Aegyptus II, 229—230, review of KEES, *Studien zur Ägyptischen Provinzialkunst* by FARINA.

The British Museum has issued *A Guide to the Fourth, Fifth and Sixth Egyptian Rooms and the Coptic Room* describing the smaller antiquities, with seven plates and many illustrations in the text.

The Illustrated Catalogue of Ancient Egyptian Art, the work of Professor NEWBERRY and Dr. HALL is worthy of the memorable exhibition of 1921 at the Burlington Fine Arts Club. NEWBERRY's introduction contains suggestive remarks as to the origins of Egyptian dynastic art, the home of which he is disposed to seek in the north-west of the Delta and ultimately in the Lebanon region.

Die Denkmäler des Pelizaeus-Museums zu Hildesheim by RÖDER is a systematic catalogue with indexes and many illustrations of this very important collection, mainly of Egyptian antiquities of all periods. A leading place is taken by statues and stelae from the Austrian excavations at Gizeh. Reviewed by WRESZINSKI in *Or. Lit.-Zeit.* XXV, 109—110.

Two fascicules have appeared of the *Collection Paul Mallon* with descriptions by P. MIGEON and AL. MORET. The collection chiefly represents Chinese and Egyptian art, the Egyptian monuments including remarkable statues, statuettes and reliefs in granite, limestone, ebony and bronze.

PERDRIZET has published *Les terres-cuites Grecques d'Égypte de la Collection Fouquet*, a sumptuous work with 126 large plates and learned descriptions. This series is likely to be of more interest to classical archaeologists or students of Hellenism than most collections of terracottas from Egypt, but of less interest to Egyptologists than that of KAUFFMANN owing to the smaller number of types representing distinctively Egyptian divinities. The same authority had previously published a catalogue of Dr. FOUQUET's bronzes, and he promises a further work on his rich collection of fifth-century Greek terracottas from Memphis representing national types, similar to those which PETRIE collected there and published in *Memphis I and III*.

Of illustrated sale catalogues there are two very notable; that of the *Collection du Docteur Fouquet* sold at the Galerie Georges Petit in Paris, 12—14 June, 1922; the collection sold was perhaps strongest in Roman, Coptic and Arab faience, but it contained many remarkable pieces of ancient Egyptian workmanship in stone and bronze, including two ointment vessels in bronze in the form of lions from Leontopolis. Still more important is the *Catalogue of the Macgregor Collection of Egyptian Antiquities*

sold in London by Messrs Sotheby & Wilkinson, 26th June—6th July, 1922, a lamentable dispersal of a very great and wonderful collection.

A note of the sale of the Amherst collection at Sotheby's in June 1921, is in *Journal* VII, 218. No doubt in consequence of these great auctions, the *Literary Supplement of the Times* for August 31, 1922 (p. 560) printed an interesting review of auctions of Egyptian antiquities in London and Paris, beginning with occasional lots in a sale as far back as March 1741—1742.

PERSONAL.

A heavy, and to most of us unexpected, loss to Egyptology was the death of GEORG MÖLLER last autumn. Obituary notices have appeared in this *Journal* VII, 221, in *Aegyptus* II, 344 by G. F[ARINA], in *Zeitschr. f. Äg. Spr.* LVII, 142—144 by STREINDORFF and in *Berliner Museen* XLIII, 1 by SCHÄFER. The last two reproduce an excellent portrait. MÖLLER was born in Caracas 5th November 1876 and died in Upsala 2nd October 1921 at the height of his powers, leaving a definite blank in many fields of Egyptian archaeology. Works which were expected from him in the near future were a palaeography of hieroglyphs, a memoir on the Libyans and another on the results of the excavations at Abusir el-Melek. The first would have been of supreme importance and all would have been done thoroughly and to perfection. As to his personality, his conscientious helpfulness to students and enquirers at the Berlin Museum was very remarkable and in accordance with the best traditions of that great institution.

A notice of the death of LEO REINISCH in 1919 is in *Aegyptus* II, 362.

A collection of half-forgotten but very interesting articles by the veteran explorer GEORG SCHWENKERT has been published under the title *Auf unbetretenen Wegen in Ägypten*; they describe journeys along the coast of the Red Sea, visits to the monasteries of SS. Antony and Paul, the Roman quarries and penal settlement at Mons Claudianus and the gold mines, the discovery of a dam of the age of the Old Kingdom and of graves of the Blemmyes, all illuminated by keen observation of land, people and customs. Reviewed by BISSING, *Or. Lit.-Zeit.* XXV, 305—307.

A bibliography of Professor CAPART's numerous writings *Liste des Publications de Jean Capart* (beginning in 1896) has been compiled, and sent round to his friends in December 1921. It is a wonderful record of one side of his activities.

The centenary of the birth of MARIETTE was commemorated by the Académie des Inscriptions on February 11th, 1921.

NOTES AND NEWS

The discovery by Lord CARNARVON and Mr. HOWARD CARTER of an unplundered (though probably not quite intact) royal tomb of the first rank in the Valley of the Tombs of the Kings, is not merely the leading archaeological event of the last six months. It may safely be said that no single find of such magnitude has ever before been made since Archaeology began, although as yet we can only guess at its full extent and richness. The circumstances were truly dramatic. Most of us feared that the famous Valley contained no more secrets; Lord CARNARVON himself was on the point of abandoning work in Egypt, owing to its somewhat disappointing yield in "royalties," for the archaeological promise of another country in the Near East. Early in November, however, Mr. CARTER for the sixth time resumed his systematic baring of the rocky sides of the Valley and discovered immediately a stair-way, low down, beneath the well-known tomb of Ramesses VI. The stair-way led to a door still sealed with royal seals. Lord CARNARVON arrived in haste from London; on November 29th the door was entered, and at once the explorers knew that they had in their hands a prize surpassing their most sanguine hopes—the Tomb of Tutankhamon, untouched since Ramesses IX and even then but little robbed. The Valley has indeed kept its greatest treasure to the last; and kept it for those who will care for it worthily. Now the tomb has been re-closed. Weeks are to be spent merely in collecting necessary materials and expert hands. Then, perhaps in January, will begin the task of extracting, photographing and listing piece by piece the crowded hoards of gorgeous, delicate and half-decayed furnishings; where necessary they will be fortified on the spot, and finally packed and transported to an appropriate destination, presumably the Cairo Museum.

Mr. QUIBELL informs us of a curious find made by Mr. WAINWRIGHT at Asyût of hundreds of stelae dedicated to the jackal- or wolf-deity of Lycopolis.

At Byblos (Gebail), which is now recognised to have been the chief trade port for Egypt on the Syrian coast (see above p. 271), an accidental fall of rock has revealed a grave containing a stone sarcophagus and various antiquities including a fine unguent-vase of obsidian and gold with the name of Amenemmes III.

It is a surprise to see figured in the Metropolitan Museum *Bulletin* for August, an elaborate lotus-goblet precisely like that from Sinai which was shown in our Pl. I, except that instead of bearing the name of Amenophis III it has the cartouches of the Sun, of Amenophis IV and of Nefert-êit. It was stated to have been part of a find in a single grave or tomb, the other objects bearing the names of Akhenaton and of Tut-ankh-amon. It is very noteworthy that the name of Ammon in the cartouche of Amenophis IV is uninjured, which must seldom have been the case with objects that were accessible through the reign of Akhenaton. This consideration raises doubts as to the correctness of the

story, which is only given for what it is worth by Mr. WINLOCK. From the photograph it is clear that the foot of the vase was broken off and it resembles in condition the fragmentary vases from Sinai, though more complete. Is it possible that it too was found there? Amenophis IV is not likely to have dedicated a vase to Hathor, but her shrine may have been temporarily converted to the worship of the Aton during his reign.

Professor SAYCE sends the following note on the *Source of Lapis Lazuli*:—"Dr. PINCHES in his interesting article on the Earl of CARNARVON's seal-cylinder in the *Journal* VII. 196 *seq.* notices that according to a cuneiform tablet *uknû* or lapis lazuli was derived from 'the Mountain of the Bull-god,' which a gloss states was called Dapara. The text is an Assyrian copy of an early Babylonian one which may go back to the age of Sargon of Akkad (B. C. 2800). Dapara is letter for letter the Egyptian Tafr-r which, as Professor NEWBERRY notes, was the country from which the Egyptians obtained their supply of the same precious stone in the time of the Middle Empire. It is another interesting illustration of intercourse between Egypt and Babylonia at that period. The forms of the cuneiform characters on the Earl of CARNARVON's seal show that it belongs to the epoch of the Third dynasty of Ur (B. C. 2400). Dapara may have been the native name of the Bull-god; but I should be more inclined to regard the gloss as denoting the name of the mountain (not country) where the Bull-god was worshipped."

Dr. HALL supplements Mr. MACE's article on *A Group of Scarabs found at Lisht* (above, pp. 13—15) by the following references to scarabs published in the *British Museum Catalogue of Scarabs*, vol. I.

1. Sebekhotpe II with his mother Yehwet-yebu, published in *Catalogue* No. 157.
2. Sebekhotpe III with Kemi, *Catalogue* No. 164.
3. Kha-hotp-re', a very doubtful one in *Catalogue* No. 194; another British Museum No. 37670, not in the catalogue.
4. Mer-nefr-re', seven in the British Museum *Catalogue* Nos. 195—199, also British Museum Nos. 53217 and 54764.
5. Swaz-en-re', *Catalogue* No. 210, and British Museum No. 51273.
6. Queen Yeni, *Catalogue* No. 202 (not in NEWBERRY).

We hear that M. DÉVAUD's projected edition of the *Scala Magna* referred to on p. 106 is given up in favour of one by M. KUENTZ, which is already far advanced and will appear shortly in the *Patrologia Orientalis* of Mgr. GRAFFIN.

A preliminary notice has been circulated concerning the Fifth International Congress of Historical Studies to be held at Brussels in 1923 during the Easter Vacation, from April 8 to 15. The first of the numerous sections is that of Oriental History and Professors CAPART of Brussels and SPELEERS of Ghent are amongst the organisers.

An article in the *Vossische Zeitung* for 25 (?) Dec. 1919, tells of the death "some months earlier" of Fräulein HARTLEBEN, the biographer of CHAMPOLLION. HERMINE HARTLEBEN was born at Gemkenthal in the Harz Mountains in the year 1846, a relation of the poet OTTO ERICH HARTLEBEN. Educated in Hanover and Paris she first obtained a post in a Greek boarding-school in Constantinople; thence, towards the end of the 'seventies, she went to Egypt where she spent six years, learning to admire the works of the Ancient Egyptians but without dreaming of any serious research in connection with them. Long after her return to Germany however, in 1891 she was instigated by SPIEGELBERG, STEINDORFF and ERMANN to find out what manner of man it was who, born

a hundred years before, was recognised to be the founder of Egyptology. Three years later Fraulein HARTLEBEN took the task seriously in hand; she received every encouragement in France from the descendants of CHAMPOLLION LE JEUNE and of his brother FIGÉAC as well as from Sir GASTON MASPERO, so that the abundant MS. treasures belonging to the family at Vif and to the nation at the Bibliothèque Nationale were put at her disposal. Her admirable biography *Champollion, Sein Leben und sein Werk* appeared in two volumes in 1906, and was followed in 1909 by CHAMPOLLION's letters from Italy and Egypt filling two volumes in the French *Bibliothèque Égyptologique*. Her death took place in retirement at Templin in the Mark of Brandenburg.

The Graeco-Roman branch of our Society having in 1922 reached the mature age of twenty-five, a group of articles appropriate to the occasion is printed in the early pages of the present issue (pp. 121—173). Fifteen volumes of "Oxyrhynchus" Papyri form the chief monument erected by "GRENFELL and HUNT" in these years. The importance of Oxyrhynchus as a sub-centre of Hellenism in Egypt is now manifest in its remains. At the time of the Arab conquest Oxyrhynchus was still a mighty stronghold of the Byzantine aristocracy amidst the disaffected Copts, and its fall, *Futūḥ el-Bahnesā*, after stout resistance, was traditionally looked upon as the great event in the advance of the Arabs through Upper Egypt.

NOTICES OF RECENT PUBLICATIONS

The Palace of Minos. A comparative account of the successive stages of the early Cretan civilization as illustrated by the discoveries at Knossos. By Sir ARTHUR EVANS. Vol. I: The Neolithic and Early and Middle Minoan Ages. Pp. 721; 542 figs., plans, tables, coloured and supplementary plates. London, MACMILLAN & Co., 1921. £ 6/6/—.

Sir ARTHUR EVANS, profiting by the comparative lull in the work of excavation caused by the war, has now produced the first volume of his great work on the palace of Knossos.

We do not say his final work, for the excavation of Knossos is nowhere near completion and fresh discoveries may impose modifications of the conclusions of the great publication in certain respects. That is unavoidable. But the work of complete publication of the results had to be undertaken at some time, the opportunity was at hand, and the material had become so vast that had not Sir ARTHUR put it into shape now it would have been later on unmanageable.

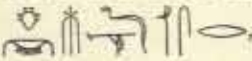


The book may advisedly be termed a great publication: one of the *opera maiora* of archaeology. Its content is so great that it is only saved from being extremely difficult to read by the compelling interest of the subject and the vivid way in which it is written. For it is no dry compendium of results. It does not confine itself to the description of Knossos alone, but, as the sub-title indicates, is a description of the whole Neolithic and Early and Middle Minoan cultures of Crete illustrated by the discoveries at Knossos.

Its illustrations do not only show us Knossos, but examples of the culture and art of Gourniā, Mochlos, and other early sites which are specially interesting in connexion with Knossos. It is in fact a *corpus* of early Cretan archaeology, written *currente calamo* and with continuing interest, lightening the task of the reader by frequent changes of view-point from the description of excavations to special considerations of pottery or other classes of antiquities discovered or to historical speculations and back again in kaleidoscopic fashion. The interest and importance of the book for Egyptian archaeologists goes without saying, and Egypt takes so prominent a place in it that this review must confine itself to consideration of Sir ARTHUR's views as to the connexions of Crete with Egypt.

In the first place he brings out the fact that the Cretan stone vases of the Early Minoan period connect not only with the Egyptian stone vases of the Old Kingdom in style, but also with those of the preceding pre-dynastic period. This is an important and incontrovertible observation. Then the general contemporaneity of the Early Minoan period with the Old Kingdom and of the Middle Minoan period with the Middle Kingdom is amply attested and is clearly brought out by Sir ARTHUR. It is not a little curious that the main periods of both civilizations in their earlier stage should as a fact have been practically contemporaneous, and that their origins seem to have been, at any rate roughly, contemporaneous also, though possibly Crete was the younger of the two, so far as we can guess at present. Even the third or last phase of the Greek Bronze Age culture begins more or less at the same time as the New Kingdom. We can see that these Egyptian historical divisions really correspond to three well-marked periods of the development of Egyptian culture, and we see the same marked distinction of periods in the three Minoan ages. Of these three Minoan ages the earlier phase of the last was (again curiously) generally contemporaneous with the XVIIIth Egyptian Dynasty. The third phase of the Early Minoan period must have been more or less contemporaneous with the VIth Dynasty, the second phase of the Middle Minoan period with the XIIth—XIIIth, and its third phase with the later intermediate and Hyksos periods. Now does one gather from Sir ARTHUR's description that the Third Middle Minoan period lasted at least 1000 years, as would be demanded by Prof. PERSSON's Egyptian chronology? One sees no reason to suppose from the description before us that the Second Middle Minoan period need have lasted more than 200, if that, and the First

and Second Late Minoan periods we know did not last more than 200 years. But, apart from consideration of the description by the acknowledged master of Cretan archaeology, does one's own archaeological knowledge and sense of probability allow one to concede to the Third Middle Minoan period a range of 1000 years? Granted that there are arguments for the long date in the Egyptian case, we can see none in the Cretan. And the Second Middle Minoan period was contemporary with the XIIIth Dynasty (as Prof. PERROT, with remarkable acumen at the time, was himself the first to shew), and the First Late Minoan with the XVIIIth. Even if we telescope the Third Middle Minoan period into the Second (since work at other sites in Crete has not invariably shewn us so hard and fast a line between the two periods as is apparently visible at Knossos), how can we, on the archaeological data, make the Middle Minoan period last 1800 years, from 3400 to 1600 B.C.? In fact, it would seem that Crete is now repaying the debt she owes to Egypt. It was with the help of Egyptian chronology that Minoan archaeology first supplied itself with a chronological scheme, when the contemporaneity of the beginning of the Third Late Minoan period with the later kings of the XVIIIth Dynasty was evident at Ialysos, Enkomi, and Amarna, and the polychrome pottery of Kamares from Kahun was shewn to be of XIIIth Dynasty age. Must we put 1800 years between them? Is so long a period arguable from any other excavation in Crete or Greece, leaving out Knossos? Rather we should suppose that all the Greek evidence is in favour of the short chronology, and against Prof. PERROT's view. And in Sir ARTHUR EVANS' book the Cretan evidence certainly seems to agree with the short rather than with the long chronology.

Leaving this important point, we note with some surprise that Sir ARTHUR EVANS accepts M. WEILL's belief in the Minoan Cretan origin of the supposed harbour-works found by M. JORDAN off the coast at Alexandria. M. JORDAN does not himself accept M. WEILL's attribution of so early a date to his submarine engineering works, and Dr. HOGARTH, in a recent review of *The Palace of Minos* in the *Geographical Journal* for September 1922, says plainly "Nothing could look less like the outline of a practicable harbour, whether Minoan or any other, than M. JORDAN's plan; and the remains in question, which have long been known to Alexandrian boatmen and port-officers, are explained far more reasonably as foundations of Ptolemaic quays and quay-side buildings, submerged by coastal subsidence." Dr. HOGARTH knows his Alexandria, and we think that his view will command general assent. Another doubtful point is Sir ARTHUR's apparent acceptance of M. WEILL's hypothetical reconstruction of the royal history of the Egyptian Intermediate period and the time of the Hyksos, which is open to manifold objections. Another authority on this disputed period, Dr. PIEPER, has already criticized WEILL on this point with effect (*O. L.-Z.* 1922, 102 ff.: "Ich kann also die Arbeit WEILL's trotz vieler richtiger Einzelheiten und beachtenswerter Anregungen nur als im ganzen verfehlt ansehen.") I can only agree, and say, less brutally, that WEILL's work is a most valuable compendium of *data* on the subject, but that his conclusions can only be received with the gravest doubts.

Sir ARTHUR rightly adopts Mr. GAFFURI's reading of the name on the little diorite statuette of the XIIIth Dynasty found in a Middle Minoan II stratum at Knossos, as , compounded with the name of the goddess Wazyt, not that of Sebek, which is formed with the pedestal  not the perch . The similarity of the convention in Egypt and Crete which represented the natural spots on the hide of the bull or cow as quatrefoils or crosses, which Sir ARTHUR points out, had already been noted by the present writer in *P. S. B. A.* 1909, p. 146, Pl. XVIII. It is possible of course that Sir ARTHUR may have anticipated me in some publication I have missed: if so we noted the fact independently.

It is rarely that Sir ARTHUR omits a reference, though in the vast mass of references in his foot-notes it would be remarkable if he were not to omit some occasionally, or make an occasional slip. The notes are a mine of references, and, as usual, admirably illustrate the wide range of the author's learning.

Among the illustrations we note many new appearances, and though the older ones suffer somewhat from their different sizes and styles due to the various preliminary publications in which they originally appeared, few fail to satisfy; the coloured plates of polychrome pottery, etc., are especially good and effective. The plans are by Messrs. FRYER and DOLL. An unavoidable defect of the book, due to its being a first volume to be followed by two others, is the absence of an index, which makes consultation on individual points very laborious.

We must congratulate Sir ARTHUR and his publishers most cordially on the appearance of the first volume of the great and long-awaited book.

H. R. HALL.

Korakou. A prehistoric settlement near Corinth. By CARL W. BLEGEN, Ph. D. Boston and New York. American School of Classical Studies at Athens. 1921.

The excavations of which the results are published in this book were made possible by an appropriation from funds contributed to the American School at Athens by Mrs. J. MONTGOMERY-SEARS of Boston, and were carried out by Dr. CARL BLEGEN with the assistance of Mr. RALPH SCOTT of the American School, and the continuous aid of Mr. A. J. B. WACE, the Director of the British School at Athens. The digging was carried out on a small mound ending in a low cliff on the shore of the Corinthian Gulf, about three miles west of modern Corinth, called Korakou. The site is that of a Bronze Age settlement, the successive strata of which can be investigated from the earliest to the latest period, so that it is of importance as giving us, almost for the first time, a complete conspectus of the development of Bronze Age civilization in Greece proper. Consequently it enables us both to place in their proper order and relation, the different types of mainland pottery, "Urñris," "Minyan," "Ephyraean," "Mainland Mycenaean," etc., which hitherto have lacked chronological cohesion, and also to estimate the influence of the Cycladic and Minoan Cretan styles on the development of the ceramic of Greece proper during the Bronze Age. In this respect the excavation is of high archaeological value, and the publication should be studied by Egyptian archaeologists as a help to the identification of "Aegean" sherds found in Egypt.

The dig also resulted in the acquisition of new information as to the house-building of the Bronze Age Peloponnesians, which should be noted in connexion with the question of the supposed different types of Cretan and "Achaian" house. Unluckily, as the cliff on the sea face of the mound shews, perhaps half of the original *tell* has fallen into the sea, which has gained much upon the land since Mycenaean times, carrying with it practically the whole of the "palace," the house of the local chief or governor. With it, no doubt, went the best things that these early Corinthians possessed, with the result that, apart from the all-important pottery, the finds of actual objects were insignificant, and even the pottery is more important to the scientific student of archaeology than to the artist, as it is very fragmentary. But its message is invaluable, nevertheless. Little information as to burials was recovered, except to prove their simplicity.

The illustrations, especially the coloured plates of pottery, are very good. With their help the reader can well follow the explanations in the text regarding the lack of connexion between the culture of the "Early Helladic" (= Early Minoan in time) and that of the "Middle Helladic" periods, which argues occupation by an entirely new race; and again with regard to the relationship between the Minyan and the Mycenaean ceramics and the influence of the Minoan on both. We congratulate Dr. BLEGEN and the American School on an excellent piece of work.

H. R. HALL.

Egyptian Visits to America. Some curious evidence discovered by O. Luyties. Printed in New York City, January 1922, twenty-four pages with many illustrations.

This pamphlet is perhaps meant to be taken seriously. The writer apparently hopes to prove that the Mayan civilisation was derived from Egypt, probably through an Egyptian colony establishing itself in Mexico about 3000 B.C. It contains illustrations of Mayan monuments and hieroglyphs and these may be new to many Egyptologists who have not time to study the interesting antiquities of America. But although points of resemblance may undoubtedly be found between Mayan and Egyptian design, their genealogical connexion is not obvious nor is it made clearer by the statements of Mr. LUYTIES.

F. LL. G.

LIST OF PLATES

	PAGE
ALABASTER VASES OF THE NEW KINGDOM FROM SINAI.	
Plate I. Alabaster Vase from Sinai	<i>Frontispiece</i>
Plate II. Alabaster Vases from Sinai	2
A GROUP OF SCARABS FOUND AT LISHT.	
Plate III. Scarabs found at Lisht	14
EL-KÂB AND ITS TEMPLES.	
Plate IV. Map of District of El-Kâb	16
Plate V. Plan of the Temple Complex	24
Plate VI. Plan of the Temples of Amenophis II and of Dyns. XXVI—XXX at El-Kâb	28
EXCAVATIONS AT TELL EL-AMARNA.	
Plate VII. The Grave-diggers' Village. General View from the South-west. Central Room in No. 12 Main Street, shewing hearth, table and baskets	48
Plate VIII. The Grave-diggers' Village. Central Room in No. 15 West Street. Staircase in No. 9 Long Wall Street, shewing the timber supports of the brick treads	54
Plate IX. The Grave-diggers' Village. View looking north along Main Street, shewing manger with tethering-rope, water-jar in position, etc. Stone window-gratings	58
Plate X. Steps leading to front door of the Vizier's House, shewing inscribed door-jamb and entrance lobby. View in the House of the Vizier Nekht, looking through the main reception-room (8) to the inner reception-room (16) and store-room (18)	62
Plate XI. The house of the Vizier Nekht. View looking along line of doors from the side entrance (30) to 22. Stone doorway in house M. 50/13	64
Plate XII. Small shrine in River Temple. In the middle of the late altar is seen the stone with the palimpsest Ramesside cartouche. The Hall of Audience, building IV, Maru Aten	70
Plate XIII. Fragment of sandstone column from the Kiosk, Maru-Aten II. Examples of frescoed pavement, Maru-Aten I (after a coloured drawing by F. G. Newton)	74
Plate XIV. Inlay heads of Akhenaten and of his queen, from little temple, Maru-Aten II. Fragments (a) pink mottled granite (b, b*) fine red sandstone, of stelae from the island pavilions, Maru-Aten II.	80
Plate XV. Maru-Aten. The Precinct of the Southern Pool	<i>between 82—83</i>
Plate XVI. Plan of the Grave-diggers' Compound	<i>between 82—83</i>
Plate XVII. The House of the Vizier Nekht. Reconstruction of the reception room in the Vizier's House	<i>between 82—83</i>
A STELA OF THE EARLIER INTERMEDIATE PERIOD.	
Plate XVIII. Stela from the Amherst Collection, now in the possession of Alan H. Gardiner Esq.	191

	PAGE
SOME HYKSOB PLAQUES AND SCARABS.	
Plate XIX. Plaque belonging to G. D. Hornblower, Esq.	201
Plate XX. Plaques and Cylinders	202
Plate XXI. Scarabs	204
Plate XXII. Bronze Mirror	206
Plate XXIII. Babylonian Cylinders, etc.	
1-5. Cylinders from Egypt. 6. Scarab in the British Museum	208
ENGRAVED HITTITE OBJECTS.	
Plate XXIV. Hittite Seals	211
Plate XXV. Tomb-Group from Napata. Hittite Seals	215
SOME OCCURRENCES OF THE CORN-'arūsch IN ANCIENT EGYPTIAN TOMB PAINTINGS.	
Plate XXVI. The Corn-'arūsch.	
a Two examples from el-Lahūn, the upper one new, the lower some years old.	
b In winnowing scene, Thebes	235
Plate XXVII. a, b The corn-'arūsch in Theban tombs of Dyn. XVIII.	
c The mueddin of el-Lahūn riding home with gift of first-fruits	236
Plate XXVIII. Shop in Hawāra with corn-'arūsch hung from the lintel	238
Plate XXIX. Corn-maidens in the Pitt-Rivers Museum, Oxford.	
a From Cyprus.	
b From Montenegro	240
THE DISCOVERIES AT TELL EL-'OBEID IN SOUTHERN BABYLONIA, AND SOME EGYPTIAN COMPARISONS.	
Plate XXX. 1. Egyptian and Babylonian mace heads.	
2. Painted pottery, etc.: el-'Obeid.	
3. Painted pottery: el-'Obeid.	
4. Egyptian carinated bowl of quartzite with Cretan liparite fragments.	
5. Stone and pottery rosette-cone: el-'Obeid	244
Plate XXXI. Tell el-'Obeid.	
1. Stone figure of Kur-lil (?).	
2. Figure of Kur-lil (?), on the site.	
3. Cat- or panther-heads: bitumen and copper	247
Plate XXXII. Tell el-'Obeid.	
1. Bitumen panther head with copper "mask."	
2. Gold bull's horn.	
3. Copper bull's head.	
4. Copper stags's head from Imgig-relief.	
5. The Imgig-relief	248
Plate XXXIII. Tell el-'Obeid.	
1. Lion's head: partly restored.	
2. Smaller lion's head.	
3. Lion's head: complete. Front view.	
4. Lion's head: complete. Back view.	
5. Teeth and eyes of lion-heads.	
6. Finding the lion-heads	250
Plate XXXIV. Tell el-'Obeid.	
1. Implements of flint, obsidian, crystal, etc.	
2. Tesselated pillar.	
3. Pre-Sargonic plano-convex brick, and rectangular bricks of Dungi.	
4. The mound and camp	252

LIST OF ILLUSTRATIONS IN THE TEXT

	PAGE
EL-KÂS AND ITS TEMPLES.	
Foundations at B. (Pl. V.)	38
AN ALEXANDRIAN COIN OF DOMITIA	164
SOME HYKSOS PLAQUES AND SCARABS.	
Fig. 1	201
Fig. 2	201
THE DISCOVERIES AT TELL EL-'OBEID IN SOUTHERN BABYLONIA, AND SOME EGYPTIAN COMPARISONS.	
Fig. 1. Sketch-map of Southern Babylonia, shewing ancient sites	242
Fig. 2. Sketch-plan of Tell 'Obeid	245
Fig. 3. Archæic Inscription of Kur-lil	250
Fig. 4. Profiles of carinated pottery bowls, el-'Obeid and Shaḥrein	254
Fig. 5. Fragments of carinated pottery bowls; el-'Obeid and Shaḥrein. Decoration black	255
Fig. 6. Fragments of carinated pottery bowls; el-'Obeid and Shaḥrein. Decoration black	256

NOTICES OF RECENT PUBLICATIONS

	Reviewed by	PAGE
Beschreibung der Ägyptischen Sammlung des Niederländischen Reichsmuseums der Altertümer in Leiden. XI: Mumien-särge des Neuen Reiches. Vierte Serie. Dr. P. A. A. Boeser	F. Ll. Griffith	107
Tylissos à l'époque minoenne : étude de préhistoire crétoise. Joseph Hazzidakis	H. R. Hall	108—109
Ägyptisches Handwörterbuch. Adolf Erman und Hermann Grapow	Alan H. Gardiner	109—110
Institut Papyrologique de l'Université de Lille, Papyrus démo-tiques de Lille. Henri Sottas	F. Ll. Griffith	110—111
Griechisch-Ägyptischer Offenbarungszauber. Mit einer ein-gehenden Darstellung des griechisch-synkretischen Dä-monenglaubens und der Voraussetzungen und Mittel des Zaubers überhaupt und der magischen Divination im be-sonderen. Dr. Theodor Hopfner	W. Scott	111—116
Koptisches Handwörterbuch. Wilhelm Spiegelberg	W. E. Crum	116—119, 187—190
Egyptian self-taught (Arabic). Major R. A. Marriotti, D. S. O.	F. Ll. Griffith	119
The Palace of Minos. A comparative account of the successive stages of the early Cretan civilization as illustrated by the discoveries at Knossos. Sir Arthur Evans	H. R. Hall	287—288
Korakou. A prehistoric settlement near Corinth. Carl W. Blegen	H. R. Hall	289
Egyptian Visits to America. Some curious evidence dis-covered by O. Layties	F. Ll. G.	289

INDEX

A

- Abbott Collection, Catalogue of the, 105.
 Adonis festival, 89.
Ägyptisches Handwörterbuch, Erman and Grapow (reviewed), 109—110.
 Akhenaton, age at death, 268; Jubilee (note on the Gayer-Anderson tablet), 199—200.
 Akhenaton, The Mummy of, ARTHUR WEIGALL, 193—200.
 Akhmimic, early text, 175.
 Akōris, cartouche at El-Kāb, 27.
 Alabaster Vases of the New Kingdom from Sinai, E. T. LEEDS, 1—4.
Alexandrea ad Aegyptum, guide to ancient and modern Alexandria by Dr. Breccia, 263.
 Alexandrian Coin of Domitia, An, G. F. HILL, 164—165.
 Alphabet, Egyptian, in Plato 279; Egypto-Canaanite, 273.
 Amenemmes III, name at Byblos, 284.
 Amenophis I, name at El-Kāb, 37; Amenophis II, Temple at El-Kāb, 22, 23, 24—31, 34; Amenophis III, Temple at El-Kāb, 17, 28; vase from Sinai, 1—4.
 Architecture: Coptic, 186.
 Temple-planning, 29, 31, 33.
 Ashur, the god, 41—44.
 Artaxerxes III, date of, in demotic, 110.
 Arzawa, The Geographical Position of, A. H. SAYCE, 233—234.
 Atania, perhaps Tyana, Tynna, or Adana, 46, 235.
 Athletics in 3rd cent. B. C., 142—150.

B

- Babylonian Cylinder Seals from Egypt, SYDNEY SMITH, 207—210.
 Civilization, parallels with early Egyptian, 242, 250, 251—253, 254—257.
 BELL, H. IDRISS, Bibliography: Graeco-Roman Egypt, A. Papyri (1920—1921), 83—101.
 Hellenic Culture in Egypt, 139—155.
 Bethshan (Beisan), Egyptian Stela at, 104.
 Bibliography 1921—1922: Ancient Egypt, F. L. GIFFITH, 260—283.
 General, 260—263; Excavations and Explorations, 263—266; Publication of Texts, *a*, from sites in Egypt, 266—267, *b*, from Museums, etc., 267, *c*, Miscellaneous, 267, *d*, Hieratic and Demotic, 267—268; History, 268—269; Foreign Relations, 269—274; Philology, 274—275; Palaeography, 275; Religion, 276—277; Science, 277—279; Literature, 279—280; Law, 280; Archaeology, 280—283; Personal, 283.
 Bibliography of Ancient (Pharaonic) Egypt, Professor Capart's, 262.
 Bibliography: Christian Egypt, DE LACY O'LEARY, 174—186.
 Biblical, 174—175; Apocrypha and Gnostic Works, 175—176; Liturgical, 176—177;

Church Literature, 177—179; History, 180—182; Non-literary texts, 182—183; Philological, 183—184; Art, Archaeology, Excavations, 184—186; Nubian Philology (F. L. G.), 186.

Bibliography: Graeco-Roman Egypt. A. Papyri (1920—1921), H. IDRISS BELL, 83—101.

Literary Texts [omitting religious and magical works for which see § 2], 83—88; Religion and Magic (including texts), 88—91; Publications of Non-Literary Texts (including Reviews), 91—93; Political and Military History, Administration, Topography, Chronology, 93—95; Economic and Social History. Numismatics, 95—96; Law, 96—98; Palaeography and Diplomatic, 98—99; Grammar and Lexicography, 99; General Articles and Bibliography, 99—100; Miscellaneous and Personal, 100—101.

Blackman, A. M., lecture by, 103.

BLACKMAN, WILFRED S., Some Occurrences of the Corn-*Aruseh* in Ancient Egyptian Tomb Paintings, 235—240.

Burials, crouched, late Survival in Babylonia, 242.

Busiris, hydria from Caere, 270.

Byblos, excavations at, 271; names of Unis, Amenemmes III and Menkheres at, 104, 284.

C

- Calendar, early Ptolemaic, 95.
 Carchemish, 104—105, 270—271.
 Carnarvon, Earl of, Excavations at Thebes; discovery of Tutankhamon's tomb, 284.
 Celts, Babylonian, 253.
 Champollion, biography of, 285—286.
 Celebration of centenary, 104, 260—261.
 Cheops, name of, at El-Kāb, 19—20.
 Christianity and Hellenism, 152—153.
 Civilization, The Antiquity of, T. ERIC PEET, 5—12.
 Criticism of Petrie's dating, by numbers of graves, 6—7; by geological evidence, 7; by the Nile deposits, 7; by "periods" of civilization, 7—8; by flint implements, 8—12.
 CLARKE, SOMERS, El-Kāb and its Temples, 16—40.
 Cleon, archives of, 141—142.
 Cleruchs, position of, at end of 3rd cent. B. C., 146.
 Clocks, ancient Egyptian, 278—279.
 Coin of Domitia. An Alexandrian, G. F. HILL, 164—165.
 Coins from Oxyrhynchus, The, J. G. MILNE, 158—163.
 Ptolemaic, 158—159; Roman to reform of Diocletian, 159—160; Roman from Diocletian to Justinian, 160—162; Byzantine, from Justinian to Arab Conquest, 162—163.
 Copper figures, etc. from Tell el-'Obeid, 246—251.
 Coptic Museum in Cairo, 177, 185.
 Corn-*Aruseh* in Ancient Egyptian Tomb Paintings, Some Occurrences of the, WILFRED S. BLACKMAN, 235—240.
 "Corn Maiden," 239.
 Creation Epic, 41—42.

- Crete, *The Palace of Minos*, Sir Arthur Evans, 269, 287—289.
 Relations with Egypt, 287—288; Tyliassos, 108—109.
 CROM, W. E., review by, 116—119, 187—190.

D

- Darius, name at El-Kâb, 27.
 Davies, N. de G., *Tomb of Nakti*, quotations from, 235—237.
 Decoration, architectural, in time of Akhenaton, 54—55; 78, 80, 81.
 Ded sign, meaning of, 43—44.
 Demotic papyri from cartonnage, 110—111.
 Dictionary, proposed Assyrian-Babylonian, 261.
 Dioscorus of Aphrodito, 154.
 Dog kennels at Tell el-Amarna, 81.
 Domitia, An Alexandrian Coin of, G. F. HILL, 164—165.

E

- Education, Greek, in Egypt, 150—151.
 Egypt, evolution of language, 274.
 Egypt, origin of people, 273.
 Egypt Exploration Society, 25th anniversary of G. R. B., 102—103, 286.
 Library, recent additions, etc., 103—104.
Egyptian Self-Taught (Arabic), Major R. A. Marriott, D. S. O. (reviewed), 119.
 Egyptian Transliteration of Hittite Names, The, H. R. HALL, 219—222.
 El-Kâb and its Temples, Somers Clarke, 16—40.
 Remains of antiquity beyond the city walls, 16—20; Site of the Temples within the city, 20—23; Temple of Amenophis II, 24—26; Great Temple of Dynasties XXVI—XXX. Date and relation to Temple of Amenophis II, 27—31; Great Temple, details, foundation stones and outliers, 31—38; Building on mound east of portico, 39; Little Building lying west of Temple of Amenophis II, 39—40; Note on small Temples with surrounding colonnade, 40.
 Elliot Smith, Professor, lecture by, 103.
 Engraved Hittite Objects, D. G. HOGARTH, 211—218.
 Enurta, figure of, 201—202, 248.
 Eridu (Shahrin), antiquities at, 243—244.
 Erman and Grapow, *Ägyptisches Handwörterbuch* (reviewed), 109—110.
 Evans, Sir Arthur, *The Palace of Minos* (reviewed), 269, 287—289.

F

- Figure-vases, 2—3.
 Flint implements in Egypt, age of, 8—12.

G

- Gardens at Tell el-Amarna, 76, 78, 81.
 GARDINER, A. H., A Stela of the Earlier Intermediate Period, 191—192.
 Review by, 109—110.
 Gospel, new apocryphal, 185.
 Graeco-Roman Branch of E. E. S., 25th anniversary, 102—103, 286.
 Γραμμάτων, archives of a, 100.
 Greek culture in Egypt destroyed by Christianity, 152—155; late traces of, 154.

- Greek education in Egypt, 150—151.
 Greek settlers in Egypt in 4th and 3rd centuries B. C., 141—143, 146—149.
 Griffiths on scarabs, etc., 204—205.
 GRIFFITH, F. L., Bibliography 1921—1922: Ancient Egypt.
 Reviews by, 107, 110—111, 119, 289.
 Note on Gayer-Anderson slab of Akhenaton, 199—200.
 Gnomie Ostrakon, A. J. G. MILNE, 156—157.
 Gnomon Papyrus, 94—95.

H

- HALL, H. R., The Discoveries at Tell el-'Obeid in Southern Babylonia, and some Egyptian comparisons, 241—259.
 The Egyptian Transliteration of Hittite Names, 219—222.
 Lecture by, 103.
 Reviews by, 108—109, 287—288, 289.
 Hartleben, Fräulein H., biographer of Champollion, 285—286.
 Hazzidakis, Joseph, *Tyliassos à l'époque minoenne* (reviewed), 108—109.
 Hebrew literature, Egyptian influence on, 272.
 Helladic culture of Korakou, 289.
 Hellenic Culture in Egypt, H. IDMS BELL, 139—155.
 Heron, Thracian rider god, 89.
 Hierakonpolis antiquities, parallels from Tell el-'Obeid, 250—251, 257.
 HILL, G. F., An Alexandrian Coin of Domitia, 164—165.
 Hittite Names, The Egyptian Transliteration of, H. R. HALL, 219—222.
 Hittite Objects, Engraved, D. G. HOGARTH, 211—218.
 Hittites, at Carchemish, 270—271.
 Hittites, deformation of skulls, 278.
 Hittites, relations with Egypt and Assyria, 223—232, 271, 272.
 Hittites, rising power, 226—227; a powerful state, 228—230; fall, 231—232.
 HOGARTH, D. G., Engraved Hittite Objects, 211—218.
 Hopfner, Theodor, *Griechisch-Ägyptischer Offenbarungsauber, I. Band* (reviewed), 111—116.
 Horapollon, 154.
 HORNLOWER, G. D., Some Hyksos Plaques and Scarabs, 201—206.
 Houses, Time of Akhenaton, 51—59, 75, 76—78.
 HUST, A. S., Twenty-five Years of Papyrology, 121—128.
Oxyrhynchus Papyri, 102—103.
 Hyksos Plaques and Scarabs, Some, H. D. HORNLOWER, 201—206.
 Originally from West Mesopotamia, 225—226, 271.
 "Hyksos" sphinx at El-Kâb, 23, 35.

I

- Imig (mythical bird), copper relief of, at Tell el-'Obeid, 248—249.
Institut Papyrologique de l'Université de Lille, Papyrus démotiques de Lille, Tome I^{er} (reviewed), 110—111.
 Inundation, ritual of blessing, 184.

J

- Jews in Egypt, 272.

K

- Kadesh, battle of, 230.
Karnak, chambers in First Pylon, 264.
Karnak, axis of Temple, 265.
Katoxi in Serapeum, 277.
KERYON, Sir FREDERIC, The Library of a Greek of Oxyrhynchus, 129-138.
Khamé, Abba John, date of, 181.
Khum and Es, resemblance between, 42a².
Kizzuwadna and Kode, SIMON SMITH, 45-47.
Kizzuwadna, 233.
Koptisches Handwörterbuch, Wilhelm Spiegelberg, (reviewed) 116-119, 187-190.
Korakon, A Pre-historic Settlement near Corinth, Carl W. Blegen, (reviewed) 289.

L

- Lapis Lazuli, source of, 285.
Lectures for the E. E. S. in winter of 1921-1922, 103.
LEEDS, E. T., Alabaster Vases of the New Kingdom from Sinai, 1-4.
Lions, copper, from Tell el-'Obeid, 246-249, 252, 255.
Lions, on scarabs, 202-203.
Lions, originally alike in Egypt and Babylonia, 242, 252-253.
Lisht, resumption of excavation at, 265.
Lisht, scarabs of Dyns. XII-XIII from, 13-15.
Looms, Ancient Egyptian, 281.
Lotus-goblets, 1, 284-285.
Lysias, papyrus of orations of, 87.

M

- Macarius, 178-179.
MACE, A. C., A Group of Scarabs found at Lisht, 13-15.
Maceheads, from Tell el-'Obeid and Shahrein, 253.
Marduk, Ashur, and Osiris, The Relation of, SIMON SMITH, 41-44.
Marduk, two-headed, 42.
Marriage contract, Greek, 140-141.
Marriage contracts, Egyptian, 97.
Marriage with sister, Greek, 146.
Marriott, Major R. A., D. S. O., *Egyptian self-taught (Arabic)*, (reviewed) 119.
Medical text, Coptic, 183; Egyptian, on surgery, 277.
Mencheres, name of, at Byblos, 104.
Meroitic, not Nubian, 274.
Metal casting, early, at Tell el-'Obeid, 247.
Metropolitan Museum of Art, Expedition, excavations at Lisht and Thebes, 265.
Metropolitan Museum of Art, publications, 105.
Scarabs found by, 13-15.
Middle Kingdom Coffin texts, proposed publication of, 261-262.
MILNE J. G., The Coins from Oxyrhynchus, 158-163.
A Gnostic Ostrakon, 156-157.
Minor Prophets, early M. S. in the Pierpont Morgan Collection, 89.
Minor, The Palace of, Sir Arthur Evans, (reviewed) 262, 287-289.
Mitanni, connection with Egypt, 228-230.
Mitteis, L., obituary notice of, Sir PAUL VINOGRADOFF, 258-259.
Monasteries in Wady Natrun, 185.

Journ. of Egypt. Arch. viii

- Mosaic work at Tell el-'Obeid, 249.
Mummification, origin of, 273.
Music, Ancient Egyptian instruments, 281.
Music, Coptic and Ethiopic Psalmody, 177.
Music, notation on Greek papyrus, 86.
Mycenaean sherds at Tell el-Amarna, 69-70.
"Myriad of Denarii," value of, 162.

N

- Nakht, Tomb of*, N. de G. Davies, quotations from, 235-237.
Natron, at El-Kāb, 17.
Near East Problems in the Second Pre-Christian Millennium, A. T. OLMEAD, 223-232.
Nectanebos, Temple, etc. at El-Kāb, 17, 27, 28, 32, 36, 40.
Nefertiti, erasure of name at Tell el-Amarna, 81-82.
Nekht, house of, at Tell el-Amarna, 61-65.
Newberry, Professor Percy, lecture by, 103.
Nome-capitals, senate granted to, 152.
Nomes, in Roman Period, highest officials not appointed to their own, 166-173.
Nubia, Oxford Expedition in, 264.
Nude figures on scarabs, etc., 203-204, 205.

O

- Obelisk, clearing of Aswan, 264.
Obituary Notices, Fräulein H. Hartleben, 285-286; J. Lesquier, 101; Professor Nicole, 101.
L. Mitteis, 101, 258-259.
Naum Bey Shukair, 106.
O'LEARY, DE LACY, Bibliography: Christian Egypt, 174-186.
OLMEAD, A. T., Near East Problems in the Second Pre-Christian Millennium, 223-232.
Osiris, connection with Babylonian myth, 43-44.
Ostrakon, A Gnostic, J. G. MILNE, 156-157.
Ostrakon, concerning the magical healing power of Horus, 267.
Oxford Expedition in Nubia, 264.
Oxyrhynchus, The Coins from, J. G. MILNE, 158-163.
Oxyrhynchus, The Library of a Greek of, Sir FREDERIC KERYON, 129-138.
Oxyrhynchus, Papyri, fifteenth volume, A. S. HUNT, 102, 103.
Oxyrhynchus, Papyri from, 121-128.

P

- Pakhom, St., 178.
Palaeolithic age in Egypt, 280.
Palaeopathology (Sir Armand Ruffer), 277-278.
Papyri, found near Beersheba, 100; Graeco-Roman, presented to the British Museum by the Graeco-Roman branch of the E. E. S., 102-103; Oxyrhynchus, 121-128; written in Marmarica, 92.
Papyrology, Twenty-five Years of, A. S. HUNT, 121-128.
Papyrus, earliest dated Greek, 140-141.
PERR, T. Euc, The Antiquity of Egyptian Civilization, 5-12.
Pepi II, name at El-Kāb, 19.
Phoenician culture and influence, 272.
Pierpont-Morgan, Coptic MSS., catalogue, 182.
Plato, on Egyptian Alphabet, 279.
Pnehasi, Royal Scribe, 2-4.
Potter's wheel, invention of, 257-258.
Pottery, Babylonian and Egyptian, 254-256.

- Ptolemaic Egypt, Egyptians in, 143, 145-149, 152;
De-Hellenization of, 145-148, 153-155.
Ptolemies as gods, 145.
Ptolemy IX, temple at El-Kâb, 18.
Pyramid Texts, edited by Sethe, 266-267.

R

- Ramesses II at El-Kâb, 18, 24, 26, 26, 29, 30, 33.
Ramesses III at Tell el-Amarna, 67, 68.
Relation of Marduk, Ashur, and Osiris, The, SIDNEY SMITH, 41-44.
Religious Texts, 267.
Roads, ancient, at El-Kâb, 17-20.
Roman Period, The Strategi and Royal Scribes in the, JOHN GAVIN TAIT, 166-173.

S

- Sa'idic New Testament, continuation of, by Horner, 174.
Suppho, 84-85.
Sarapis, 143-144.
SAYCE, A. H., The Geographical Position of Arzawa, 233-234.
Scarab, Hittite, 214.
Scarabs found at Lisht, A Group of, A. C. MACE, 13-15.
Scarabs, Some Hyksos Plaques and, G. D. HOKY-BLOWER, 201-206.
SCOTT, W., review by, 111-116.
Seals, Babylonian Cylinder, 207-210.
Hittite, 211-218.
Hyksos, 205.
Serapeum, *σάραπειον* in the, 88, 89.
Sethos I, name at El-Kâb, 37.
Shubbiluliuma, Hittite King, 220-221.
Sinai, lotus vases from, 1, 284.
Smith, G. Elliot, Professor, lecture by, 103.
SMITH, SIDNEY, Babylonian Cylinder Seals from Egypt, 207-210.
Kizzuwadna and Kode, 45-47.
The Relation of Marduk, Ashur, and Osiris, 41-44.
Snake-stelae, 276.
Sophocles, 85.
Sottas, Henri, *Papyrus démotiques de Lille, Tome 1^{re}*, (reviewed) 110-111.
Spiegelberg, Wilhelm, *Koptisches Handwörterbuch* (reviewed) 87-90, 116-119.
Stela of the Earlier Intermediate Period, A, ALAN H. GARDINER, 191-192.
Stelae, of Sethos I at Beisân and at Byblos, 104.
Egyptian Hieroglyphic in British Museum, 267.
Jewish, in Greek, at Tell el-Yahudieh, 264.
At Lycopolis, dedicated to jackal, 284.
Stone masons, work of, 27, 281.
Strategi and Royal Scribes in the Roman Period, The, JOHN GAVIN TAIT, 166-173.
Sudan, Arabs in the, 263.

T

- Taia, Queen, supposed mummy of, 193-199.
TAIT, JOHN GAVIN, The Strategi and Royal Scribes in the Roman Period, 166-173.
Tarsus, 46, 233.

Tell el-Amarna, Excavations at, C. LEONARD WOOLLEY, 48-82.

The Village Site, 48-59; The Main City Site, 60-65; The River Temple and the Mycenaean Sherds, 65-70; Maru-aten or the Precinct of the Southern Pool, 70-82.

Tell el-'Obeid in Southern Babylonia, The Discoveries at, and Some Egyptian Comparisons, H. R. HALL, 241-257.

Antiquities found, 243-244; building 245-246; copper figures and other objects 246-249, 250-251, 258; mosaic work 249; architectural decoration, 249; limestone figures, 250; pottery, 249, 250, 253-256; mace heads, 253; stone weapons, 253; early animal drawings, 257.

Temples, at El-Kâb, of Thutmosis III, 17, 28; Amenophis II, 22, 23, 24-31, 34; Amenophis III, 17, 28; Ramesses II, 18, 24, 25, 26, 29, 30, 33; XXVI Dyn. 20-23, 25, 26, 28, 30; Nectanebo, 17; Ptolemy IX, 18.

At Tell el-Amarna, of Ramesses III, 65-70, 72, 79-80.

Destruction of, 20, 36.

Textiles, 185.

Thebaid, revolt in 88 B. C., 92.

Thebes, axis of Temple of Karnak, 265; chambers in First Pylon, 264; excavations for Lord Carnarvon, and for the Metropolitan Museum New York, 284, 265.

Theotokia, 176-177.

Tombs, rock-cut, at El-Kâb, 17.

Town-planning under Akhenaten, 49-50.

Tutankhamen, discovery of tomb by Lord Carnarvon and Mr. Howard Carter, 284.

Relations with Hittites, 271.

Thutmosis II and III at El-Kâb, 37; 17, 28, 29, 32, 36, 40.

Tylioson à l'époque minoenne : étude de préhistoire crétoise, Joseph Hazzidakis, (reviewed) 108-109.

U

Unis, monuments at Byblos, 104.

Ur, excavations at, 242, 243, 244, 253.

V

Vases, Alabaster, of the New Kingdom from Sinai, E. T. LEECH, 1-4.

Vases on scarabs, 206.

VINOGRADOFF, SIR PAUL, obituary notice of L. Mitteis (1859-1921), 258-259.

W

Wady Natrun, Monasteries in, 185.

Weaving in Ancient Egypt, 281.

WEIGALL, ARTHUR, The Mummy of Akhenaten, 193-200.

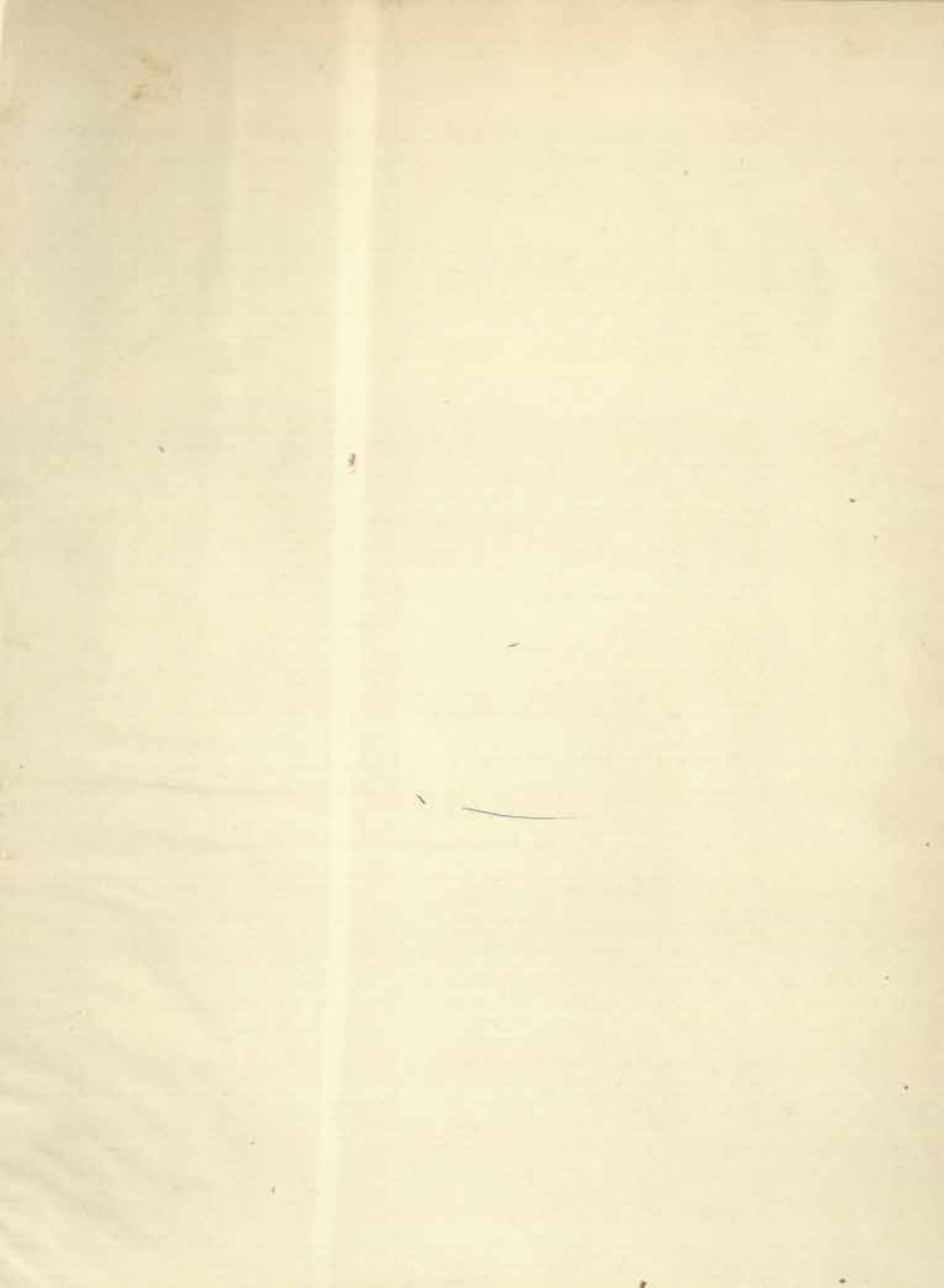
Weight, Hittite, in form of calf, 211-212.

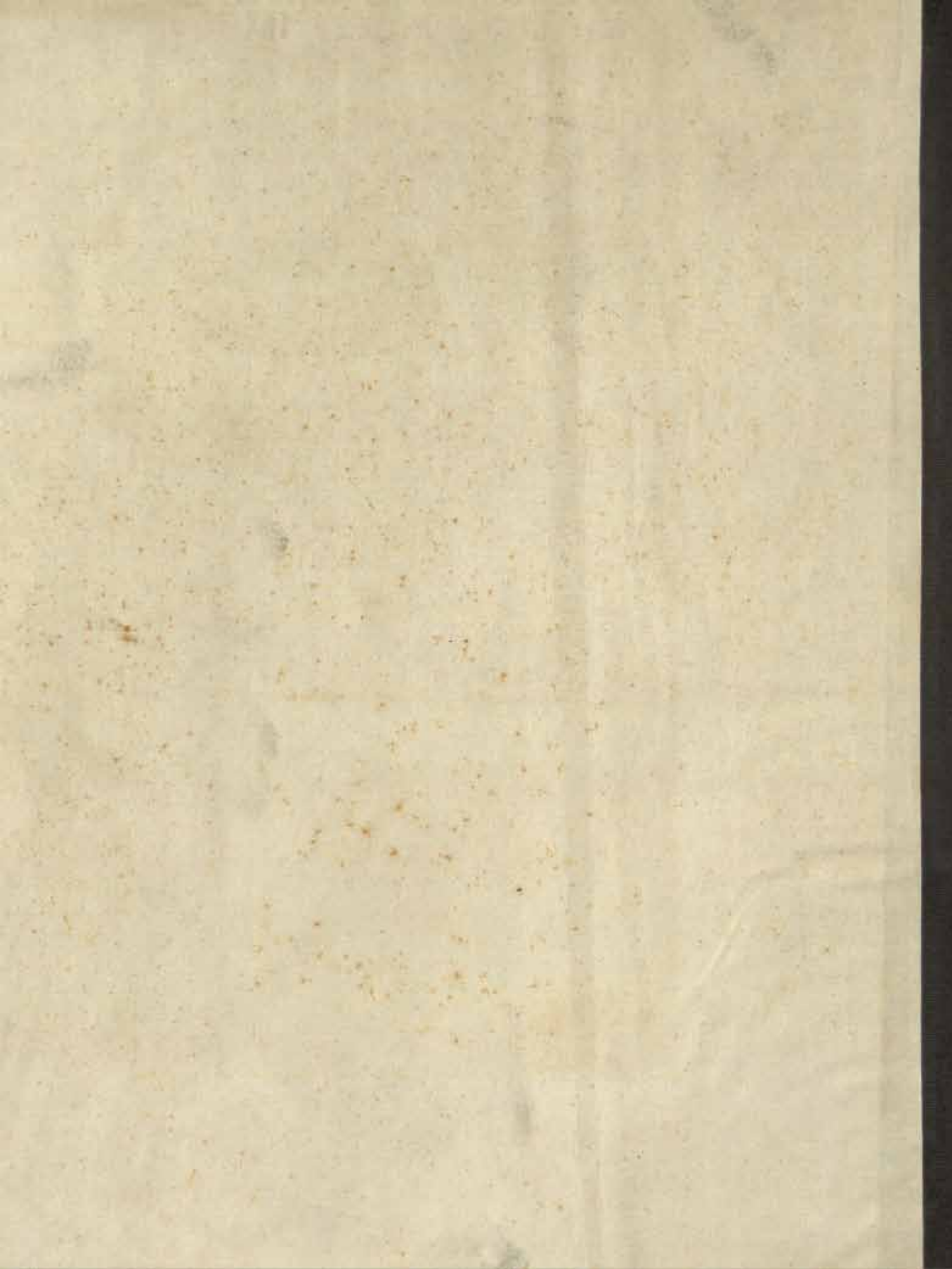
WOOLLEY, C. LEONARD, Excavations at Tell el-Amarna, 48-82.

Z

Zeno Papyri, 91-92, 93, 95, 100, 141-142, 143; Serapis cult in, 144; Hathor and Aphrodite, 144.







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